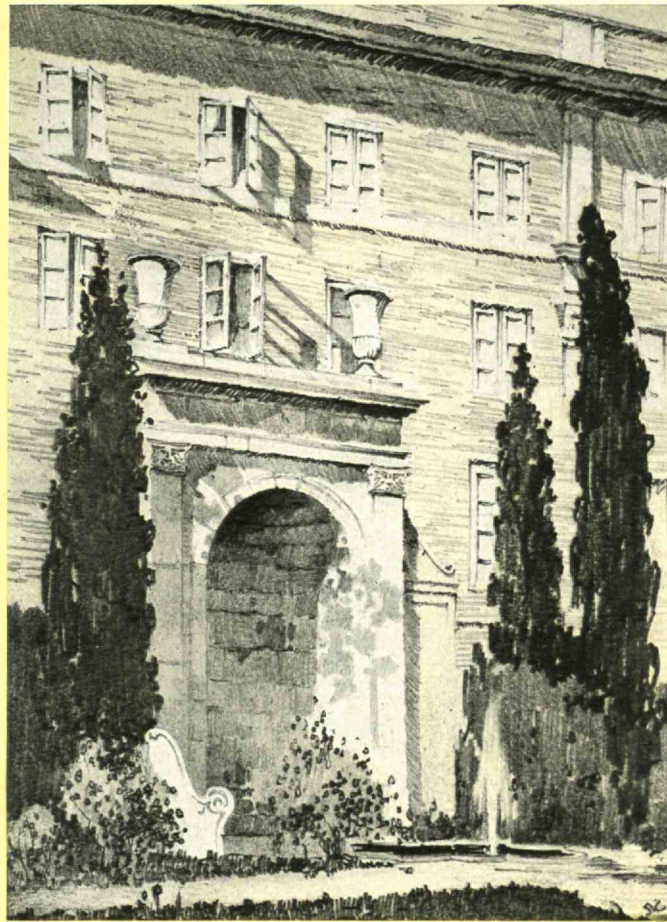


THE TECHNOLOGY REVIEW



MAY
1926

RELATING TO THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

technology review

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"The Song of the Shirt"

WITH FINGERS weary and worn,
With eyelids heavy and red,
A woman sat, in unwomanly rags,
Plying her needle and thread.
Stitch—stitch—stitch!
In poverty, hunger, and dirt;
And still with a voice of dolorous pitch
She sang the Song of the Shirt.

"O men with sisters dear!
O men with mothers and wives!
It is not linen you're wearing out,
But human creatures' lives!
Stitch—stitch—stitch!
In poverty, hunger, and dirt—
Sewing at once, with a double thread
A shroud as well as a shirt!"

—Thomas Hood.



ELECTRICITY

—the great emancipator



More than half of the homes of the nation are now able to enjoy the comfort and convenience of electricity. But hardly any home is yet allowing this cheapest servant to do *all* that it *should* do. Wherever electricity is generated or used you will find electrical products bearing the initials G-E—make them your guide.

TOM HOOD'S poem swept over the world. It was one of the first influences that made lawmakers and humanitarians and scientists see that women's lives are too precious to be wasted in the daily toil of routine tasks.

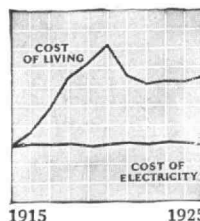
Wise laws already have limited women's working hours. But another kind of force than law has also been at work. The great emancipator is electricity.

No wise manager of a factory now asks any woman to do by hand a task that an electric motor can do.

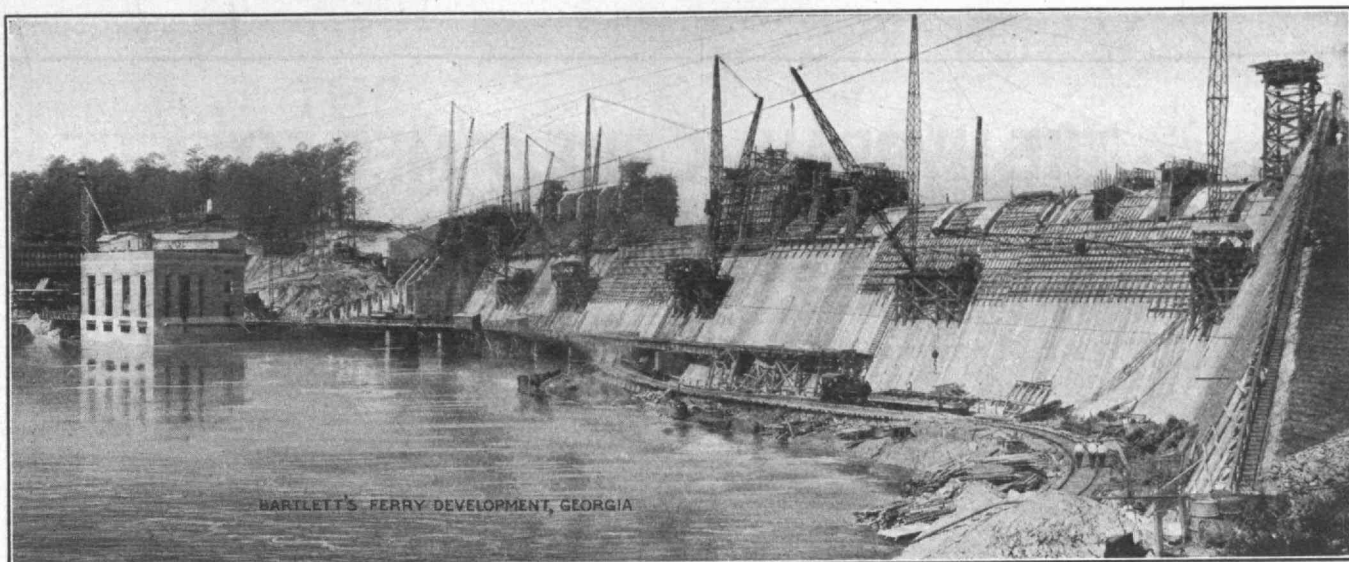
No wise husband allows his wife to do by hand the old, heavy tasks of washing, and sweeping, and pumping, and sewing.

With cheap electricity, and with electric light and power lines reaching far out into the countryside, we have learned that it is bad sense and poor economy for *any* woman to do *any* work which electricity can do for a few cents an hour.

What hard task is there in your home that electricity could do just as well and at little cost?



GENERAL ELECTRIC



New Water Power Construction

NEW water power construction by Stone & Webster includes a variety of plants providing power for both public utilities and isolated industrial establishments. The work is widely distributed, the southernmost development being in Georgia on the Chattahoochee River, the northernmost in Michigan on the Menominee River, the most easterly in New Hampshire on the Merrimack River, the most westerly in Washington on the Baker River. Old plants have been reconstructed securing maximum power from existing stream flow, and new plants have been built, some high head and some low head with dams including both concrete and earthfill construction; there has been tunnel work.

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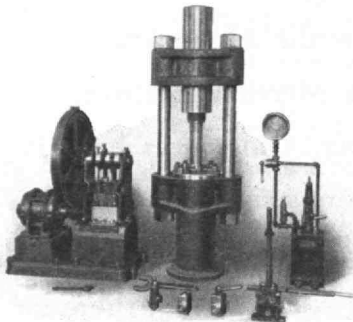
FACTORY
MOUNT GILEAD
OHIO.
U.S.A.
SINCE
1877

Mount Gilead, Ohio.
May 1st, 1926.

Dear Alumni:-

I have told Reg. Smithwick to count me in on our five year class reunion this June. I hope to see a lot of you twenty-one'rs "back to Tech".

However, this is intended to be an "All-Technology" letter. Getting down to business - I am going to be with you on this page each month to talk "HIGH PRESSURE", (not that I am a high pressure salesman in the usual sense). I am doing this, believing that many M.I.T. men are in work that touches on the various applications of high pressure hydraulic power. Designing and building machinery for this service is the field of our company.



This month as the first example of H-P-M High Pressure apparatus, I call your attention to the Hydro-Static testing outfit which we placed in Professor Hayward's Testing Materials Laboratory a few years ago. The attached small photo shows the principal items, i.e. - a 2-1/2 horse power motor driven H-P-M Pump with a pressure capacity of 5500 pounds per square inch, an H-P-M Intensifier to develop 16,000, (thou-

sands, mind you), pounds per square inch, and H-P-M Valves and Fittings which stand this gaff..

Whenever you desire data on high pressure hydraulic machinery - presses, pumps, valves, etc. - please write me. Be sure to call my attention to your Technology connections.

I will hope to hear from many of you.



Yours for Tech.

Howard J. McMillin
Second Vice-President II-21.
THE HYDRAULIC PRESS MFG. CO.

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RELATING TO THE MASSACHUSETTS
INSTITUTE OF TECHNOLOGY

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No. 7

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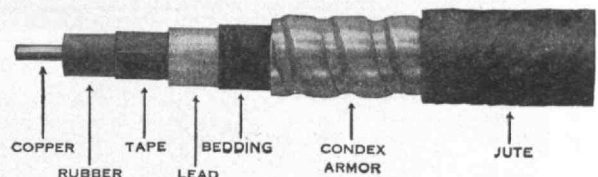
ORVILLE B. DENISON, '11, *Secretary-Treasurer*

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The TECHNOLOGY REVIEW

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VOLUME XXVIII

MAY, 1926

NUMBER 7

The Past Month

GEODETTIC and seismic investigations by which it is hoped to add to the store of knowledge on the problems of earthquakes and readjustments in the earth's crust, will be started by the Institute this summer. It is planned to make a modest beginning and add to the equipment in instruments as the importance of the work develops in the future.

Camp Technology, near East Machias, Maine, where field work in surveying is given during the summer, has been decided upon as an excellent location for such investigations. The rocky foundation of the country and its isolation well adapt it for the purpose and, as it will be the only station in the extreme northeastern part of the country, it will not duplicate the observations of others.

The station is established not only for the object of seeking new knowledge toward solution of geodetic problems but to develop experts in this branch of science. George L. Hosmer, '97, Professor of Geodesy, who will be in active charge of the field work, expects to establish a base line from which geodetic surveys can be started this year. The task requires instruments of great precision and a special theodolite has been built for the purpose.

It is known that relatively large changes have taken place in the latitude and longitude of certain established points on the earth's surface. Some of these are caused by systematic variations, and earthquakes cause other changes. But there are certain movements of the earth's crust that cannot be attributed to any known cause. Within recent years, for example, scientists have been puzzled by a tilting of the land toward the sea. These changes, which have

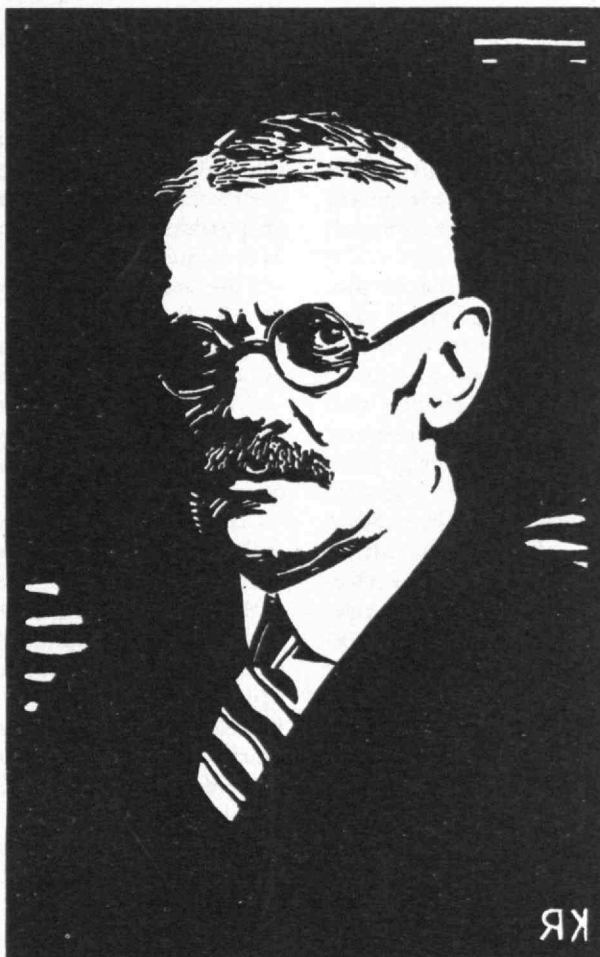
been detected in the leveling work of the Coast and Geodetic Survey, cannot be wholly accounted for by any known tidal action or rise and fall in the land.

It is expected that the seismograph which will later be installed at the station for the measurement of earthquake waves will be one recently developed by Dr. Harry O. Wood and J. A. Anderson of the Mount Wilson Observatory in California, of which George E. Hale, '90, is Honorary Director. The new instrument differs radically from the older forms of the seismograph. It has the advantage of a short vibration period, which is important in measuring the waves of earth shocks, and is highly accurate. No installation date is yet set.

It will record photographically instead of mechanically as the older instruments do, and because of its light weight will be less subject to mechanical difficulties due to friction and to variations of temperature. A Mendenhall invariable half-second pendulum will be used in gravity studies and the astronomical observatory already established on the site will be part of the station.

In addition to beginning work on the base line this year, measurement of the angles in triangulation surveys will involve erection of several towers about fifty feet high to allow unobstructed observation above the tree tops. A line of precise levels will also be started.

FOR its 119th meeting held in the Faculty Room of Walker Memorial on March 29, the Alumni Council spent most of its time in a discussion upon the then forthcoming and (as we go to press) nearly accomplished meeting of the Technology Clubs



From a woodcut by Kenneth Reid, '18

HENRY F. BRYANT, '87

Distinguished civil engineer, and this year sole nominee for Vice-President of the Alumni Association for 1926-1927

Associated in Cincinnati on April 23 and 24. A series of hair-tearing telegrams from out of Cincinnati raised vividly before the Council the question of whether or no the meeting was to be held. Several difficulties in program temporarily disheartened the out-of-Boston alumni contingent as represented by the Cincinnati Club, and after considerable debate, which concerned not only the immediate problem of the April meeting, but likewise the broader question of what place in world affairs the Technology Clubs Associated ought really to hold, the Council voted to request the managers of the Convention to proceed along previous lines. Heartened by this demonstration, Cincinnati had the Convention although the results cannot be included in this issue of The Review.

As further business the Council listened to two reports: one by Mr. Denison, then just returned from his discovery of the Far West, and another by Allan Winter Rowe, '01, upon the subject of the standardization of the Technology colors, the cardinal and gray. Mr. Denison gave facts, figures and anecdotes, was heckled and made retorts, explained the Mystery of the Missing Briefcase, and, in general, was his accustomed self.

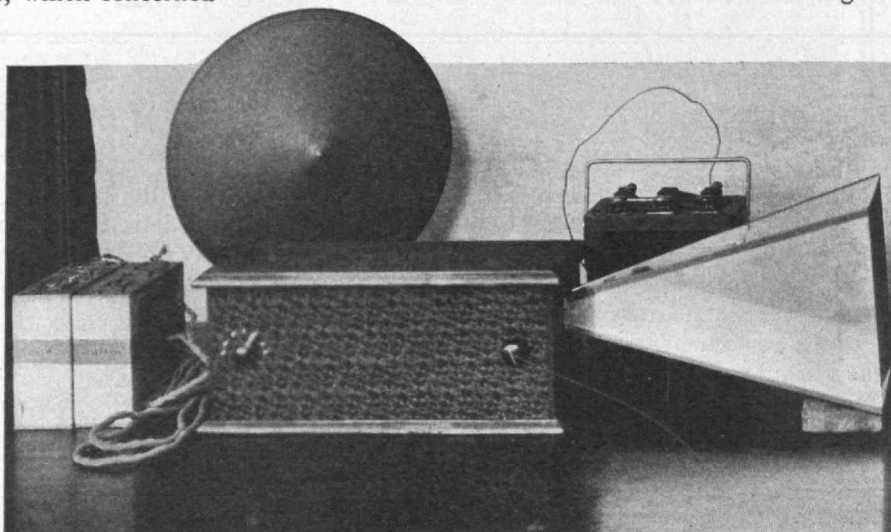
Dr. Rowe exhibited considerable concern over the decay of the color sense among Technology men. Through his courtesy The Review excerpts the official version of his presentation:

"From time to time the question arises as to the exact colors which constitute the so-called official cardinal and gray of the Massachusetts Institute of Technology. Some years ago the question again arose as it was deemed advisable to standardize these shades, the immediate necessity being uniformity in the insignia worn by our athletes. As cardinal red was designated as the dominant color, an attempt was made to secure samples of materials so designated. . . . Ultimately,

through the initial courtesy of the Reverend George L. Coyle, S.J., a well-known expert on textile colors, I was enabled to secure a piece of silk forming a portion of a vestment of William Cardinal O'Connell, to whose courteous coöperation I wish to record my sincere indebtedness.

" . . . Realizing that the silk in

question might not retain its shade, I conferred with Dr. S. P. Mulliken ['87] of the Institute to enlist his interest in the matter and utilize his high degree of expert knowledge concerning the dyes producing this color. . . . Feeling the matter to be both important and emergent, I desire to place the matter before the Alumni Council with the following rec-



WE LISTEN IN ON LIGHT RAYS

The receiver of the apparatus recently designed by Donald C. Stockbarger, '19, of the Department of Physics. Across the page you will see the transmitting end

ommendations for action at the discretion of that body:

"First, that the President of the Alumni Association shall appoint a Committee to decide upon and standardize two colors, one a cardinal red, the other a silver gray, which shall be accepted as the official colors of the Massachusetts Institute of Technology.

"Second, that this Committee shall consist in part of Dr. S. P. Mulliken, as Chairman; and Mr. Charles Bittinger as a constituent member; with such other individuals as the President may select.

"Third, that with the adoption of the respective colors the absorption spectra shall be determined and that these reproducible standards shall fix the colors in question.

"Fourth, that with the designation of the colors, as defined by the absorption spectra, experimental work shall be carried out to determine the dye or dyes together with their methods of application, which will reproduce these standard colors on the different fabrics of silk, woolen, cotton, and mixtures of the same. . . ." Much impressed, the Council unanimously voted Dr. Rowe's resolutions into the record. The personnel of the Alumni Dormitory Fund Committee was announced as a concluding feature of the evening. The members are H. F. Bryant, '87, H. A. Morss, '93, T. B. Booth, '95, Gorton James, '10, and H. B. Richmond, '14.



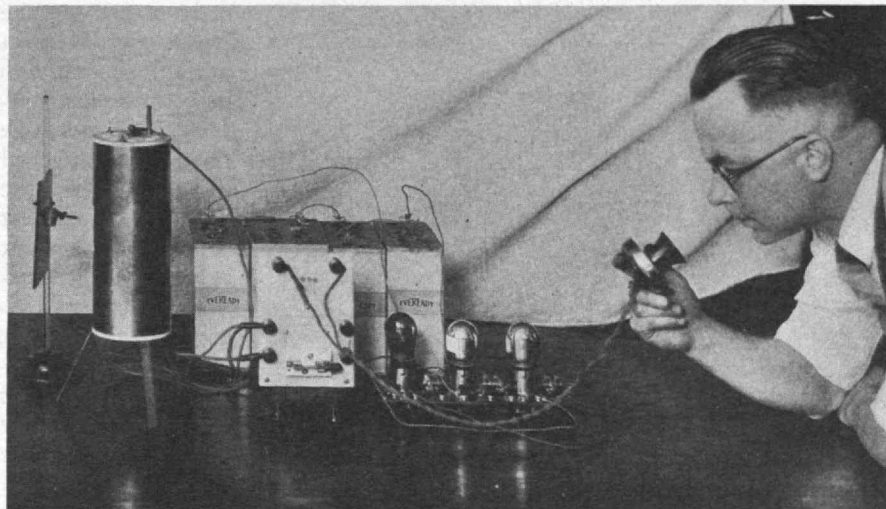
OBVERSE

The new and striking medal in memory of George Swartz, '24. Sculptor John Wilson is the designer

SOMEBODY told it to a newspaper; told only part of it, and part of what they told was wrong. Verification was overlooked in the rush of press time. Hence a "scoop", inaccurate, misleading — embarrassing to the innocent individual and Technology.

Donald C. Stockbarger, '19, instructor in the Department of Physics, has prepared a paper for publication in a forthcoming number of a technical journal describing his researches in "directional radio" by the transmission of the spoken word on a beam of light, and now the true story can be told for the first time.

The genesis of Mr. Stockbarger's discovery lay in a



WE TALK ON LIGHT RAYS

Here is Mr. Stockbarger talking into his beam of light. For description of the apparatus and process see the story on this page

quartz mercury vapor arc the current through which and the light from which is modulated by the voltage impressed upon it from a radio receiving set. Although the appearance of the arc remains entirely unchanged so far as the eye is concerned, the minute fluctuations, if received upon a potassium hydride photo-electric cell, may be amplified into a current which with perfect fidelity reproduces the message.

Not only has he developed an apparatus which will transmit his voice, music or other sounds on a beam of light to a receiving device which will make them again audible, but his apparatus possesses two important features: (1) It is perfectly directed and by it one could signal from a boat to an airplane or vice versa without the use of special code or fear of eavesdropping, for no one outside the path of the light ray would receive the message; (2) the entire operation of transmission can be concealed: in his laboratory, Mr. Stockbarger has already sent signals successfully, using only invisible ultra-violet radiations. These invisible radiations he can produce and control as successfully as ordinary light.

Thus far the transmission of sound by light has not been developed to the point where great distances may be covered nor is it to be expected that this method of communication will ever compete with the present-day radio methods, since light is easily absorbed by smoke, fog and other atmospheric conditions.

Mr. Stockbarger substitutes a small quartz mercury vapor arc lamp for the oscillator tube in an ordinary small radio transmitting set, operated on direct current so regulated as to take normally a current of one ampere. "It is coupled," says his description of the procedure, "to an ordinary radio receiving set

where customarily a loud speaker would be attached, with a high ratio step-down between it and the output terminals of the set. Fairly loud signals, after amplification in the set, produce an alternating current in the arc which may be as large as one-tenth of an ampere. The total current in the arc, being the algebraic sum of the direct current and the alternating

current, changes in value at a frequency equal to the frequency of the alternating current. Since the latter flows forward during one-half of a cycle and then backward during the next half cycle and so on, it follows that the current through the arc is greater than one ampere during one half-cycle and less during the next half-cycle. The intensity of the light from the arc increases and decreases just as fast as the current does, and by an amount proportional to the amount of current change and therefore to the magnitude of the alternating current. The stronger the signal, whether it be from a violin note, or any other sound, the greater is the alternating current and the greater is the resulting flicker in the light. The higher the pitch of

the sound producing the radio signal, the more rapidly the light flickers."

Having once translated his collection of sounds into flickers, he proceeds to make it audible at the reception point by means of an ordinary radio set in which no radio frequency amplifier is employed, but the crystal or vacuum tube detector is replaced by a photo-electric cell. The flickering light passes through a small window in the silvered photo-electric cell bulb and thereby causes a pulsating current to flow. The loud speaker does the rest.

In imagination, Mr. Stockbarger can establish a sending apparatus on the steps in front of the main entrance to the Institute building and talk to his Department Head, Professor C. L. Norton, '93, in the window of his office on the eastern wing of the building. And no one can listen in unless he gets in the light path. Then, Mr. Stockbarger can swing around and say something to Professor E. F. Miller, '86, who will conveniently place himself just outside the door near his office in the western wing. What he tells Professor



REVERSE

The George Swartz medal will be given every year hereafter for excellence in athletic managership

Miller, he can keep secret from Professor Norton, and furthermore, if he uses ultra-violet radiations, neither will know when he is talking to the other.

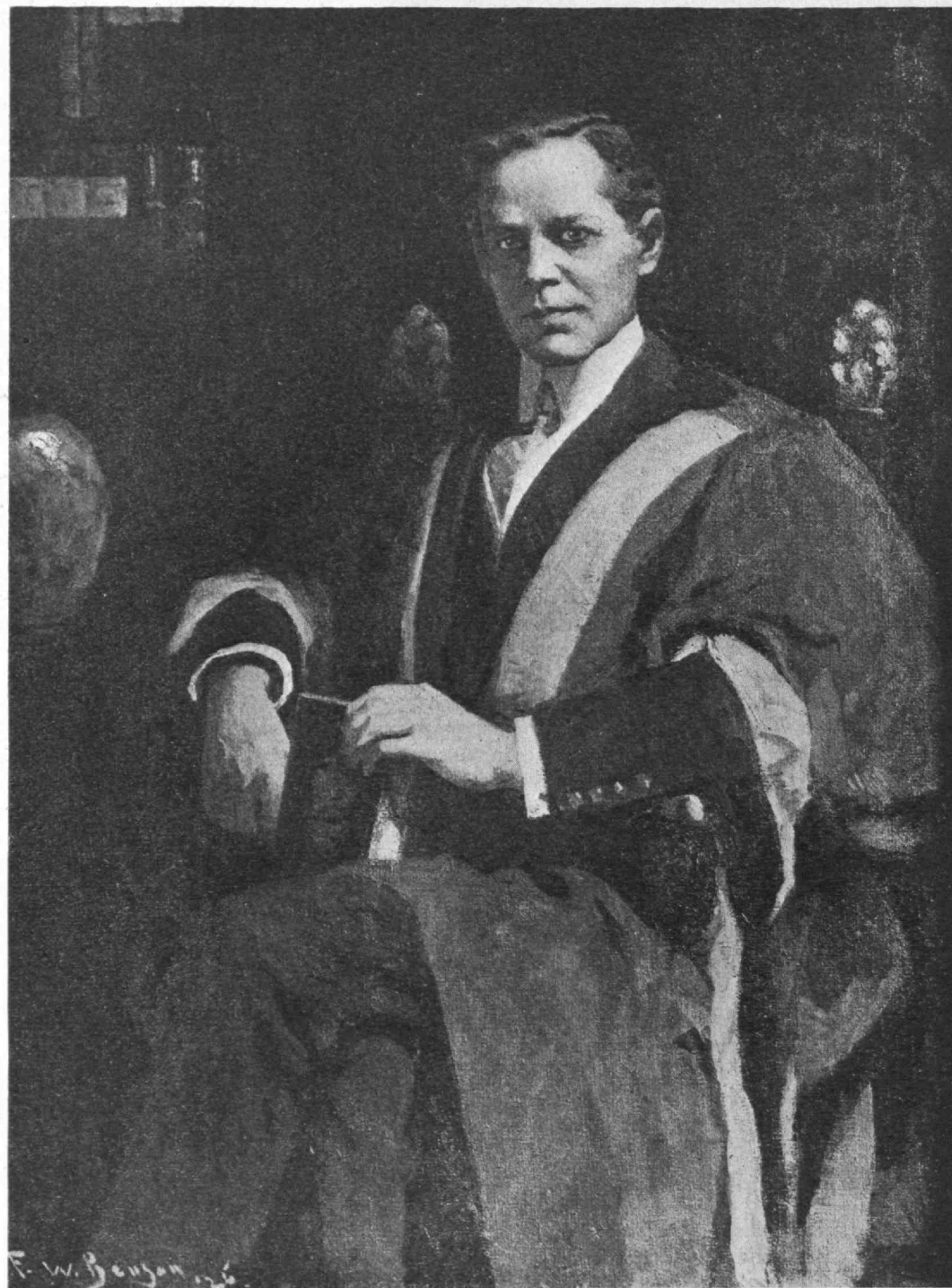
COMMUNICATION electrically by means of light is not in itself new. Before the days of radio other methods were tried and since then the subject has had much consideration.

Alexander Graham Bell on August 27, 1880, at a meeting of the American Association for the Advance-

ment of Science, delivered a lecture on the production of sound by light. He described a device, which he termed the "photophone," by means of which he and his co-worker, Sumner Tainter, had been able to transmit sounds with a beam of light. He varied the intensity of the beam through the use of a delicate mirror which vibrated when sound waves struck it. At the receiving end the varying light fell upon a selenium cell whose electrical resistance decreased and increased as the light increased and decreased, and so permitted a

variable current to flow through a battery and telephone receiver connected in series with the cell. Bell stated that this variable current reproduced the original sounds in the receiver, and that he had been able to receive spoken words at a distance of over 200 meters from the vibrating mirror. Since the apparatus which he had at his command was crude compared to modern equipment, it is probable that the quality of reproduction obtained was far from satisfactory. At any rate the idea appears not to have been developed.

M. Luckiesh in his book "Ultraviolet Radiation" published in 1922, refers to the work on signaling by ultra-violet radiation during the World War which "was accomplished by directing the invisible beam upon luminescent substances. . . . One of the problems in such a case is to conserve the ultra-violet energy. It can be directed by a parabolic mirror and caught by another at a distance. In the first case the source of the radiation is at the focus of the mirror and in the second case the 'lumines-



RICHARD COCKBURN MACLAURIN

At a reception given on April 15 by the Corporation this portrait by F. W. Benson was placed on public view for the first time. It will hang in the main lobby

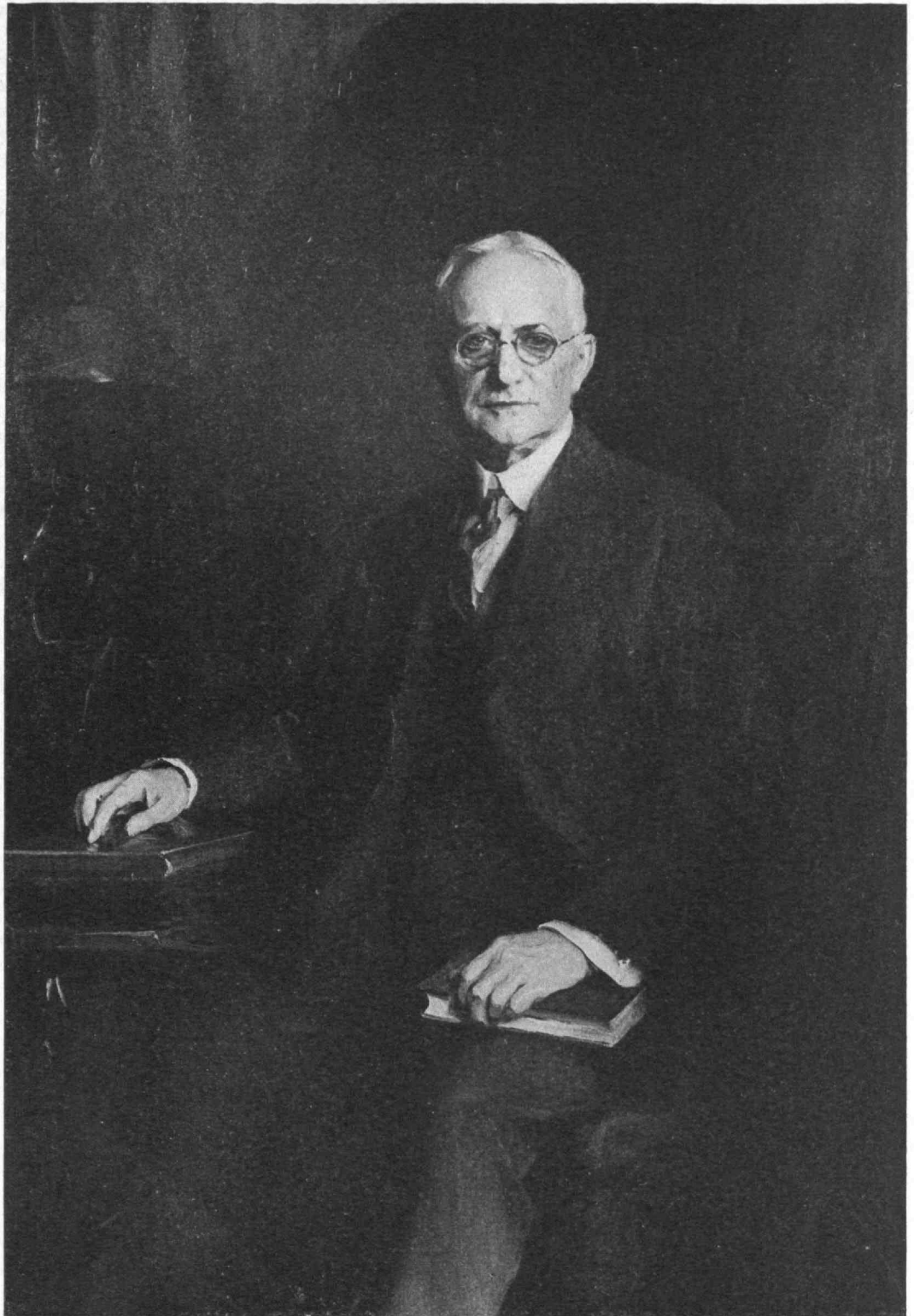
cent' substance is at the focus. Various methods, sources and filters were tried and as a consequence of such combined experience signaling was accomplished."

More recently, Dr. Lee De Forest has demonstrated and described his "phonofilm" method of reproducing sound by means of light. He records sounds on a moving strip of photographic film by exposing the latter to a small beam of light whose intensity is varying with the same frequencies as those of the sounds. To reproduce these sounds, after the film has been developed and a positive film has been made, the latter is passed between a light source and a photoelectric cell and eventually the record becomes audible again. Doubtless some readers of The Review may have heard the rival "phonofilm" claims of President Coolidge, John W. Davis and the late Senator La Follette bursting forth seemingly from the screen of their favorite cinema during the Presidential campaign of 1924.

AGAIN, as in recent years, for the one night designated as "Open" the public took possession of the Institute, its buildings, its laboratories and lecture halls, to find out (chiefly by invitation) what that "Hell" of traditional cheers is like.

This year on the evening of April 22, every window of the Institute blazed light, the doors of Technology were thrown open, and thousands, many parents and friends

of students, and youths of preparatory, high or grammar schools, poured through the corridors. They saw the mysteries of the laboratories, the wheels that turn in the Department of Mechanical Engineering, the wonders of the electrical achievements of the age, suitably demonstrated for their particular benefit.



GEORGE EASTMAN

This striking portrait of Technology's great benefactor is by Sir Philip de Laszlo and is presented to the Institute by the Corporation. It will be a companion portrait to that of Dr. MacLaurin

In the Machine Tool Laboratory lathes hummed, ball bearings went through strange antics, jumping through hoops, disappearing and reappearing. There were moving pictures of industrial processes; the auto-

(the Committee has stated that less than forty per cent of those who enter graduate); whether admission with conditions be abolished; whether it is desirable to use additional selective methods, the weight to be attached to pre-engineering collegiate work, experience in industry, a probationary period of review and orientation, and other tests; how the gap between school and college may be diminished.

The question of a fifth year of preparation was discussed and the chairman stated his opinion that it was not generally desirable from the standpoint of the Institute.

From such conferences as this in which problems facing the preparatory and the college teacher are discussed from the several points of view must come much good in mutual understanding and earnest coöperation.



Courtesy of New York Times

OLD HENLOPEN

On April 13 this old light off the Delaware capes crashed into the sea despite the best efforts of Coleman du Pont, '84, to save it. See the story on page 385

motive laboratory showed its best gasoline power units in explosive demonstration, and scores gathered about the models in the Naval Architecture Museum.

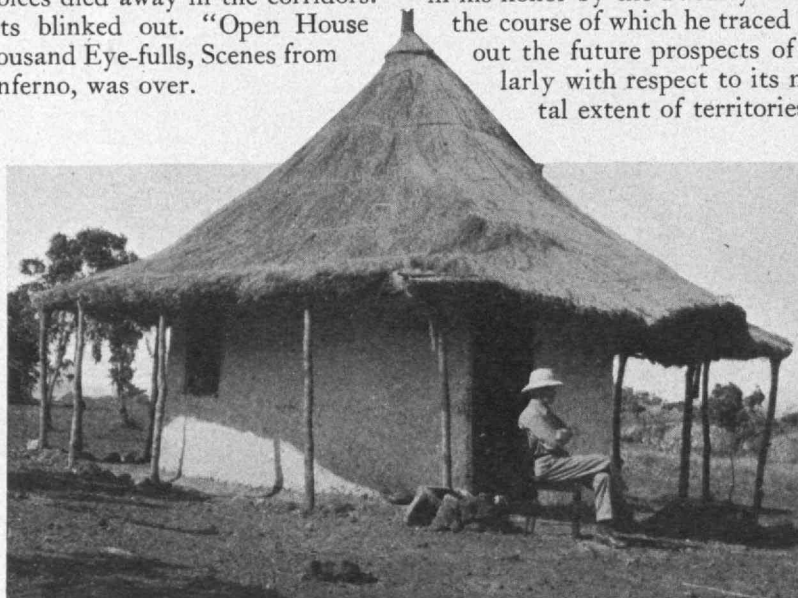
Midnight came and the throng departed. Wheels ceased their spinning. Gas engines gasped and stopped. The echoes of many voices died away in the corridors. One by one the lights blinked out. "Open House Night," Hours of a Thousand Eye-fulls, Scenes from Dante's Engineering Inferno, was over.

FUNDAMENTAL questions concerning the problems of admission to engineering colleges, Technology in particular, were discussed at a Faculty Club luncheon given for high school and preparatory school teachers in Walker Memorial on March 27. Professor Harry W. Tyler, '84, Head of the Department of Mathematics, presided.

There was discussion on questions presented by the committee of the Society for the Promotion of Engineering Education which has been studying problems of engineering education under former Professor W. E. Wickenden, whose article "The Engineering Scene" appeared in The Review for January, 1926. These included questions on whether admissions to engineering colleges should be more strict

"SOUTH AFRICA has a race problem resulting not alone from the great disparity of numbers between whites and natives, there being more than seven blacks to each white person, but because of the division of the white race between the English and the Cape Dutch or 'Afrikanns,'" observed W. S. Hutchinson, '92, Professor of Mining at Technology, who, some time ago, returned from a foreign trip of several months, three of which were spent in Southern Rhodesia. This statement he made at a luncheon given in his honor by the Faculty Club on March 31, during the course of which he traced the history and pointed out the future prospects of South Africa, particularly with respect to its mineral wealth. The total extent of territories under British control

in South Africa is more than 1,500,000 square miles, he pointed out. In reference to the race problem as regards the natives who furnish practically all of the manual labor in South Africa under white supervision, and who are always referred to as "boys" no matter whether sixteen years or sixty, he attributed much of the difficulty not to the numbers of blacks but to the variety



ANT-PROOF ARCHITECTURE

Timberless adobe houses are the fashion in the Lomagundi district of Rhodesia. Professor W. Spencer Hutchinson, '92, who may be seen in the foreground, lived for over a month in this one. See the story on this page

of tribes and languages. In Southern Rhodesia with an area approximately equal to the combined areas of New York, New Jersey, Pennsylvania and Ohio there are about 33,500 whites and 800,000 native blacks. This latter figure "at first thought seems large, but a somewhat modified view is obtained by comparing it with that of the four States named above. It is just about the same,

or, in other words, the density is about five per square mile in either case. It is said, however, that there are more than two hundred languages and dialects spoken by the different branches of the Bantu race. The means of communication between them and the white man is commonly by what is known as 'kitchen kaffir,' and practically all of the resident whites and native blacks who are in employment learn this speech.

"All schools, courts, legislatures and other branches of the public service are conducted both in English and Dutch. One-half the white population speak both languages; one-fourth speak English only; one-fourth Dutch only. The feeling of the Dutch is illustrated by a personal experience. I have arranged to visit a mine about twenty-five miles west of Pretoria and an English friend had arranged to travel with me, but was prevented by another engagement. He explained that he was sorry but would have to send me out with a Dutchman who could not speak English but knew where the deposit was and would be a good guide. We met the Dutchman for luncheon and it appeared that he did not understand English for some one had to interpret everything that was said. We drove to the mines, and then, when we were out of hearing of our chauffeur, an English-speaking colonial, the Dutchman began to converse in English and really spoke it quite well. Pride of race prevented his speaking it in the presence of his British neighbors."

RARE maps and charts of the Western Hemisphere, treasures of cartography from the John Whittemore Farwell collection, through the courtesy of Mr. Farwell, are now and will for several months be on exhibition in the Nautical Museum of the Department of Naval Architecture.

The exhibition which was formally opened at the reception given by President Stratton and the Corporation on April 15, reveals examples of the cartographer's art dating from very early periods.

The work of Claudius Ptolemy, considered the founder of scientific cartography, is represented. There is a first edition of Ptolemy's Geography published at Vicenza in 1475, and a "Map of Cartagena" by Johannes Baptista done on vellum in 1586. Mercator's first attempt to publish an atlas is shown. It, too, is on vellum, done at Duesburg in 1585, under the title: "*Galliae Tabule Geographicae*."

The impetus given the art of cartography in England in the Seventeenth Century is graphically illustrated in specimens of the period when Elizabethan seamen brought new knowledge of geography to the makers of maps and charts.

The work of Spanish and Portuguese navigators who, during the fifty years after Columbus discovered America, carried on the work in cartography started by the explorer, is also revealed in several rare exhibits.

The Dutch followed the English in a growing interest in gathering knowledge of the world on their voyages and thus the accumulated data gathered by Drake, Cavendish, Dampier and the

various Dutch seamen aroused much activity in New World map-making. The painstaking Dutch were most prolific in maps in the Eighteenth Century when France also added valuable contributions to the growing store of knowledge.

There are scores of these maps and charts, to give a striking illustration of the strivings of men to learn more of what lay beyond the blue horizons of the seas.

APPARATUS of a spectacular complexity at present studies, in a laboratory of the Department of Chemical Engineering, so difficult and precise a matter as the rate at which a flame starting in a mixture of explosive gases propagates itself through unconfined space.

Soap bubbles come to the aid of science in this study. In much of the work that has previously been done, the research has amounted to little more than a quantitative investigation of a classic experiment: fill a gas pipe

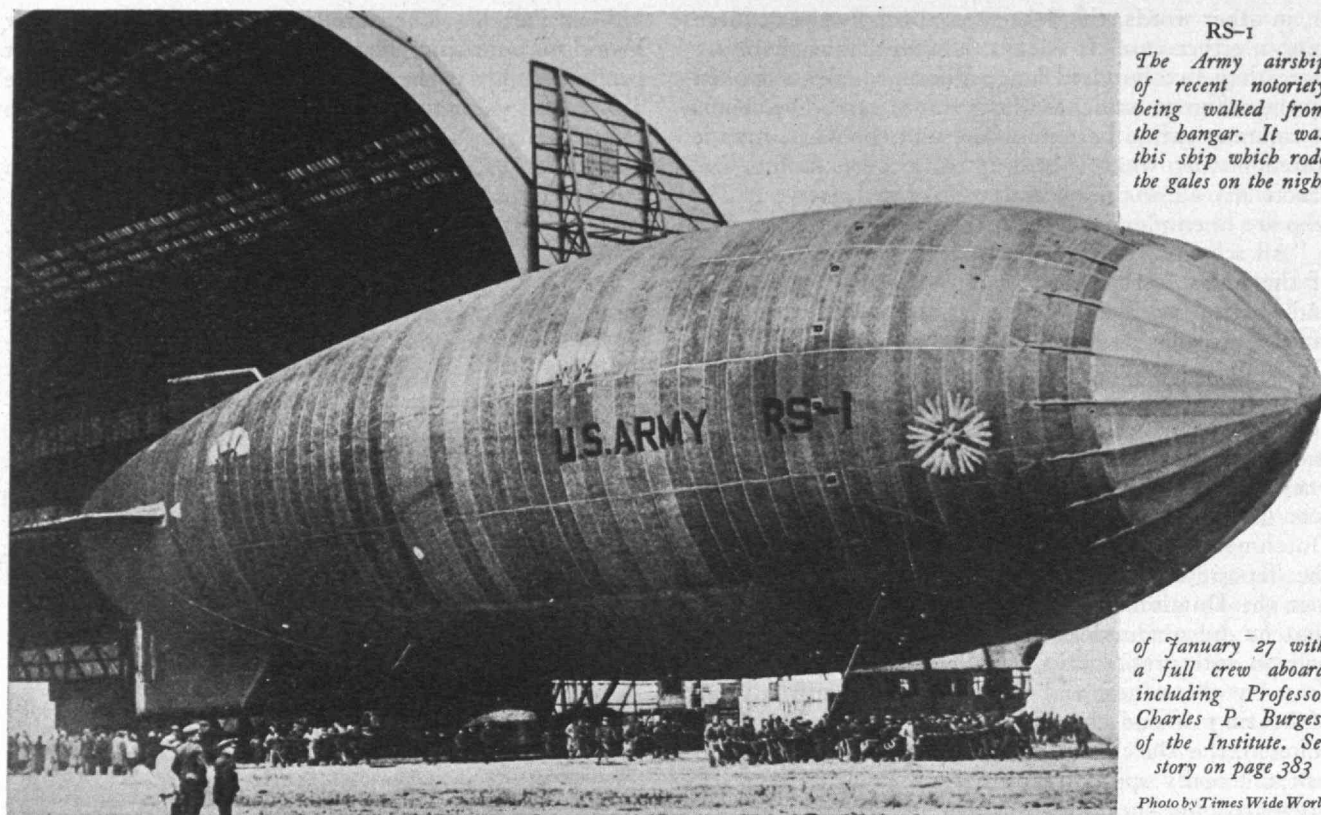


MR. HART MAKES A DISCOVERY

Among the old books of Francis R. Hart, '89, is the *Cosmographia* of Petrus Apianus printed in 1584. Mr. Hart thoughtfully forwards copy of a page to the Institute with the statement "Here is a picture of the Eastman Court of the Institute with students from the Civil Engineering Course determining the heights of the buildings with observations made in the Court with astrolabes, which, for surveying purposes were the predecessor of the modern transit. The text under the picture, which you will have no difficulty in reading, describes the method of calculating the heights and distances by the ordinary triangulation methods." We wonder did the beaver so obviously emerging in the middle distance escape Mr. Hart's scholarly scrutiny?

RS-1

The Army airship of recent notoriety being walked from the hangar. It was this ship which rode the gales on the night



of January 27 with a full crew aboard including Professor Charles P. Burgess of the Institute. See story on page 383

Photo by Times Wide World

full of gas, touch a match to one end of it, and see how soon the resulting detonation reaches the other end. Obviously, however, the shape and resistance of the container have much to do with the flame's progress, and a true knowledge of the flame itself can be had only when the exploding gases are practically unconfined. Several years ago, it occurred to F. W. Stevens, physicist at the Bureau of Standards, to fashion a soap bubble full of gas from a pipe containing a concealed spark plug, close an electric circuit, touch off the gases, blow the soap bubble into eternity and photograph the result. This procedure proved admirably efficacious in removing previous experimental difficulties.



Photo by Notman

CHARLES P. BURGESS

Associate Professor of Aeronautical Engineering at the Institute who, now for the second time, relates his experiences on a runaway dirigible

Now, at the Institute, under the direction of Professor R. T. Haslam, '11, an adaptation of Stevens' earlier apparatus is performing this feat many times a day. Light from a narrow aperture illuminates the doomed bubble; a

camera with perhaps the fastest lens in the world (f.2 and made of quartz, but uncorrected for spherical aberration) focuses upon it. A motor spins and an elaborate timing gear system sees to it that at the precise instant that the spark plug fires, the camera shutter opens and a strip of film moves across the field at a rapid but controlled rate. The result, the developed film will show as a cone-shaped trace of the widening circle of flame radiating from the spark plug as the film moves down. Much interesting scientific data is already accumulating in corroboration or refutation of earlier theory. At present, hydrogen-oxygen mixtures provide most of the food for study and the vicious detonation of one one-hundredth of an ounce of this inflammatory combination periodically jars Building Two to its roots. Later, when control experiments are properly accounted for, gasoline vapor will be the exploding element, and effects of the injection of lead tetraethyl will be laid bare by the all-seeing eye of the f.2 lens. Thus will the Department bring up shock troops from still another quarter for the attack on this vexing problem. Does lead tetraethyl accelerate or retard the flame propagation in the automobile engine cylinder? Opinions, theories, differ. Within a month there should be cold, photographic proof.

CHARLES MOORE, chief of the division of manuscripts of the Congressional Library at Washington, delivered the Aldred Lecture on April 9, taking as his subject "The Fine Arts of Work," in which he spoke on the relations between art and engineering. The topic was an absorbing one and Mr. Moore's lecture, one of the most interesting of the Aldred series. It is reproduced in this issue on page 393.

The speaker for the next lecture will be Elisha Lee, '92, Vice President in Charge of Operation of the Pennsylvania Railroad, and sole nominee for President of the Alumni Association in 1926-1927. The subject of his lecture, which will be given on April 30, has not yet been announced. Mr. Lee will also attend the regular meeting of the Alumni Council, postponed to that date on his behalf.

ROBERT B. SOSSMAN, '04, Geologist of the Carnegie Geophysical Laboratory, whose lectures on "The Earth's Composition" last year attracted wide interest, gave a series of ten lectures at Technology on "Elastic Waves and the Earth" in April.

The lectures discussed in general the existence and detection of waves within the earth and the conclusions reached as to its internal structure and development on the basis of such observations. The first part of the course dealt with the effect of various alternative structures of the center and shell of the earth and the probable effect on wave phenomena. In the last half of the series he spoke on the development of the center and shell and speculations in connection with its origin.

COURTESY of "The Bell System" made it possible recently for members of the Faculty and students to discuss certain branches of the science of electrical communication with six prominent engi-

neers. Discussions in the form of colloquia were held at the Institute on April 5 and 6, when Dr. William S. Osborne, transmission engineer, Department of Operation and Engineering of the American Telephone and Telegraph Company, and William Fondiller, chief of the General Development Laboratory of the Western Electric Company, spoke on "Recent Developments in Loading and Use of Repeaters."

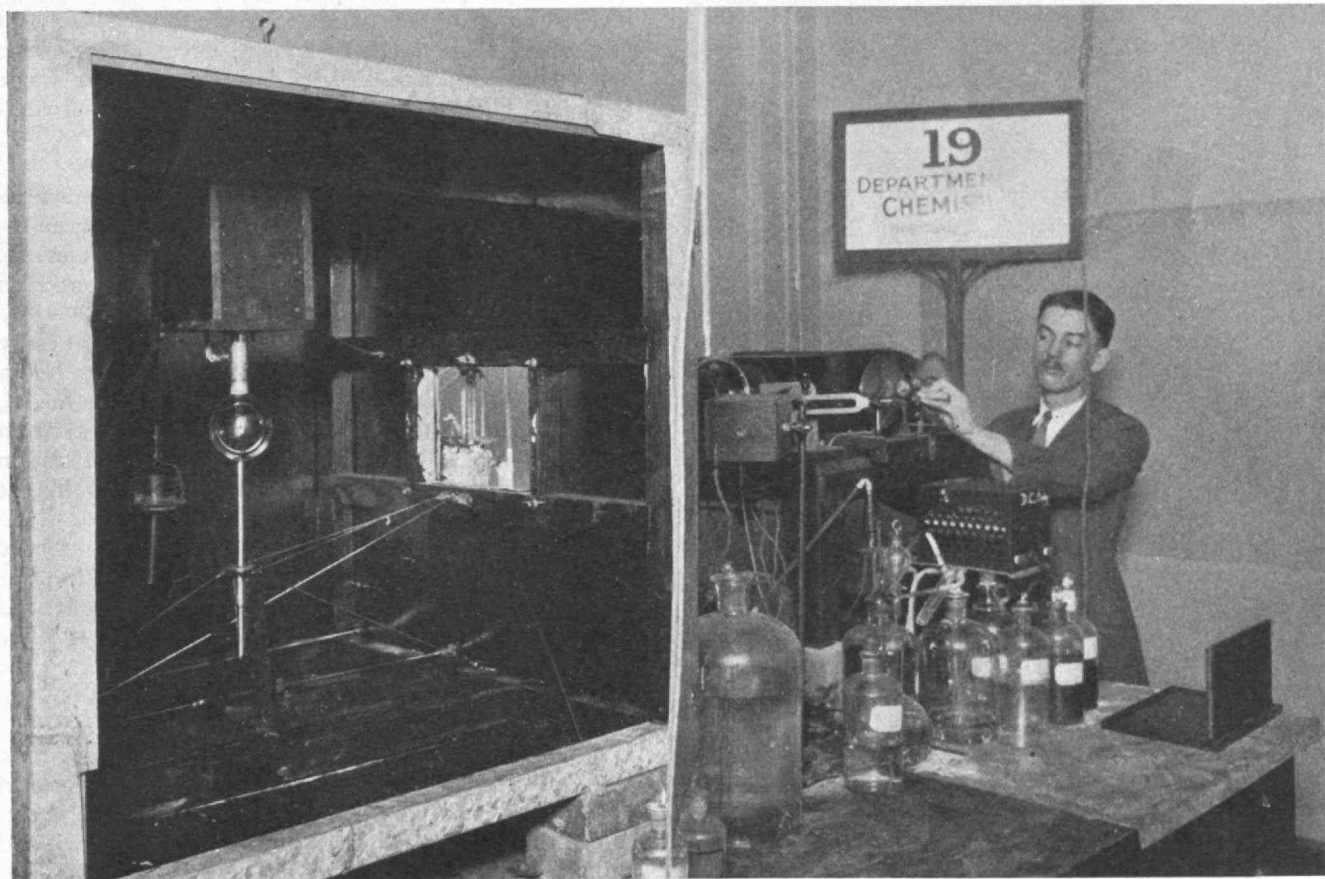
Talks on the "Principles of Electric Filters" were given on April 26 and 27 by Dr. Otto J. Zobel, of the Department of Development and Research of the American Telephone and Telegraph



Photo by Garo

FRANKLIN W. HOBBS, '89

Who bears the distinction of being the only man simultaneously to hold the office of President in two great textile associations. See the story on page 383



SOAP BUBBLES AND SCIENCE

The handsome polished globe which you will observe to the extreme left of this photograph is made of nothing more durable than soap film. Filled with a mixture of hydrogen and oxygen and exploded by an electric spark, it is the means of furnishing to the Department of Chemical Engineering much data on the vexing problems of flame propagation. See story on page 379

Company, and T. E. Shea of the Apparatus Development Department of the Bell Telephone Laboratories.

On May 10 and 11, O. B. Blackwell, transmission development engineer, and W. H. Martin, Department of Development and Research, both of the American Telephone and Telegraph Company, will open discussions on the "Transmission of Electric Waves and Carrier Currents."

ORGANIZING and operating the small business, a subject that already has aroused much interest among students, has been added to the studies in Business Management in the Course in Engineering Administration. At present the subject is treated in a portion of the second term of the Senior Year.

This innovation in business training was suggested by Professor E. H. Schell, '12, and its purpose is to give students some background in the organization and operation of small enterprises; to teach how the initial errors may be avoided; to prepare students to be of service to large corporations in organizing and establishing new departments and small subsidiaries, and to offer students opportunities to discuss affairs with business men who have successfully organized such enterprises. The project also serves to coordinate the various subjects

presented in the Engineering Administration Course, such as marketing, finance, accounting and the study of economic trends. In organizing the subject those in charge have sought to bring the practical viewpoint into the classroom rather than develop theoretical opinions.

Business men who have been successful in organizing and operating small businesses will from time to time lecture to the classes and the students will also have the advantage of consulting with business executives and examining their methods of administration.

THREE drawings were entered by the Department of Architecture in the "Second Preliminary Competition for the Paris Prize," and all three were placed in the group of five to enter the final competition from which one man is selected to go abroad for two years, having the very unusual privilege of being admitted to the advanced class at the Ecole des Beaux Arts in Paris. The judging took place April 6 in New York City.

In its earlier stages, the competition was open to every draftsman and student of architecture throughout the United States. There are 1200 such students at present enrolled in the Beaux Arts Institute of Design and the significance of the success of the three Technology men was further marked by the fact that Harvard also placed one man, so that out of the five, four come from Boston schools. The Department of Architecture takes particular pride in that 100 per cent of its representation was admitted to the final competition and because, so far as is known, never before in the history of the Paris Prize Competition has a single school ever placed three contestants in the final competition.

AFUND, the income of which is to be known as the James Means Memorial Prize, has been established at Technology by Dr. James H. Means, '06, in memory of his father, a pioneer in aeronautical investigations.

The prize is to be awarded annually for the best essay submitted by an undergraduate of the Institute on an assigned aeronautical subject. The prize will be a medal, and in addition the Committee of Award may award a sum of money to be applied toward the cost of tuition for graduate study in aeronautical engineering by the winning student.

James Means, who was an active contributor to aeronautical literature early in the present century, was particularly interested in gliding and soaring flight, and the subject assigned for this year's competition is "The Influence of Gliding and Soaring Flight Studies on the Development of the Modern Airplane."

THE Technology Clubs Associated were about to go into session at Cincinnati when this issue of The Review went to press. For the moment, therefore, little more can be said than to record the fact and promise details of the gathering in the July issue.

The Technology Club of Cincinnati with a membership of more than a hundred was host to members from other clubs. Headquarters were at the Hotel Alms.

Those from the Institute who planned to attend the



Photo by Times Wide World

VILHJALMUR STEFANSSON

The arctic explorer of eleven long years spoke at length at a dinner given at the Technology Club of New York by Thomas C. Desmond, '09. See page 384. The photograph shows him greeting Explorer Rossman in the costume of the country they both know so well

convention were Professors Samuel C. Prescott, '94, Vice-President of the Alumni Association; Warren K. Lewis, '05, Head of the Department of Chemical Engineering; Leicester F. Hamilton, '14, of the Department of Chemistry and Chairman of the Dormitory Board; and Robert H. Richards, '68, Professor Emeritus of Mining and Metallurgy. David A. Shepard, '26, President of this year's senior class, and Orville B. Denison, '11, Secretary-Treasurer of the Alumni Association will also attend.

Among the questions expected to be discussed in the business sessions were the best methods of maintaining interest in the activities of the local clubs, the new "regional scholarship plan," the alumni dormitory program about to be started, and the "National Technology Center" plan, which was to be presented by its originator, Thomas C. Desmond, '09, President of the Technology Club of New York.

APRIL was a month of red letter days for Technology alumni and if the undergraduate or young alumnus, pondering over the coldness of human sympathy in this mundane existence, will read he will observe that more than one man who has gone before him found it possible to surmount his obstacles.

Just as March was drawing to a close, the directors of the Goodyear Tire and Rubber Company elected Paul W. Litchfield, '96, President of the Company to succeed the late G. M. Stadelman. Mr. Litchfield joined the Goodyear ranks almost twenty-six years ago when the company was less than a year and a half old and when it was engaged solely in the manufacture of bicycle and carriage tires. It was Mr. Litchfield who supervised and aided in the making of the first Goodyear automobile tire and since that time practically every department of importance has come under his personal supervision. He has directed, while Vice-President and factory manager, the making of more than 82,000,000 tires. Besides this he is widely known for his interest in aeronautics (See *The Technology Review* for February, 1926) and has made special studies of lighter-than-air craft.

The early part of April witnessed the election of Lamont du Pont, '01, as President and Chairman of the Executive Committee of the E. I. du Pont de Nemours Company, succeeding his brother, Irénée of the Class of 1897. Prior even to this, the presidency had been held by Pierre S. du Pont, '90, and sometime ago by the present Senator from Delaware, Coleman du Pont, '84. As is generally known, this du Pont Company is the oldest as well as the largest American manufacturer of explosives, having been founded in 1802. Besides its primary product it now makes and markets a variety of wares such as dyestuffs, paints, chemicals and celluloid articles.

Also, although not taking effect exactly during the span of the calendar assigned to April, it is appropriate to record here that Franklin W. Hobbs, '89, President of the Arlington Mills of Lawrence, Mass., was recently chosen President of the National Association of Wool Manufacturers of which Walter Humphreys, '97, was at the same time reelected Secretary. Mr. Hobbs succeeded John P. Wood, '82, who retired after twenty-six years of

service as an officer and director. Sometime ago Mr. Hobbs held the office of President of the National Association of Cotton Manufacturers. No one has ever headed both Associations simultaneously nor had the same individual ever held both posts until the election came to Mr. Hobbs.

Other honors fell to other Technology men during April, but, of all, those listed above seem most significant. These men may fittingly be termed "Captains of Industry" along with Andrew G. Pierce, Jr., '85, President of the American Woolen Company; Alfred P. Sloan, Jr., '95, President of the General Motors Corporation; Gerard Swope, '95, President of the General Electric Company; Elgood C. Lufkin, '85, but recently the President of The Texas Company.

ON the night of January 27, such a gale as that which destroyed the great dirigible *Sbenandoab*, swept down from the northwest and across the Middle Atlantic states. But not until recently was it known that the Army's big dirigible *RS-1*, was in the air that night battling the high wind over Illinois throughout the storm.

It was Charles P. Burgess, Associate Professor of Airship Design at the Institute, and civilian consulting engineer in the Navy's Bureau of Aeronautics, who told the story of the flight for the first time. The fact that he was on the ship in her forced flight is sufficient proof of his right to speak with authority. This in spite of the fact that certain gentlemen who preside over Scott Field, home of the *RS-1*, were inclined to exclaim: "Poof! poof!" or whatever it is that military men say when some one stubs his toe on what was supposed to be a non-capsizable bean pot.

Despite all controversy, it is known that the *RS-1* was landing and about to be "walked" into hangar on that day in January when the rising gale threatened disaster unless the ship was freed. Lieutenant O. B. Anderson, commanding the craft, ordered her cast loose, and she lifted swiftly, but not before two of the four struts on her navigating cabin had been smashed when she pounded on the field.

With only the two remaining struts and steel cables to hold the control car to the keel, Lieutenant Anderson kept her circling over Scott Field near Belleville, Ill., until the gale, increasing in velocity, swept her forty miles to the southwest. All through the night the crew worked to keep the ship's head in the wind. The food taken aboard early in the day for a trial flight had been consumed at lunch and nothing edible except a few onions was left. Nor was there anything to drink. To add to the hardships of the flight the temperature dropped to twelve degrees below zero in the ship's gondolas.

In the early hours before dawn the *RS-1*'s engines began to gain over the force of the wind and she moved ahead. Meantime the radio officer, Lieutenant John Salsman, attempted to overcome everything from jazz music to a Wednesday evening prayer meeting being broadcast from several powerful stations, to communicate with Scott Field. Not until the last dance tune was over and the final prayer ended was he able to reach the radio officer at the army station.

Aside from the fact that he told the home station the ship was holding her own against the gale, the most important part of his message was to request that food and drink be made ready for their landing.

At dawn when the sky was still dark and the wind less violent, Lieutenant Anderson brought the *RS-1* over the landing field and she sank to earth, victor with the exception of two broken struts, over one of the most violent storms of the winter.

The ship, plunging violently for the greater part of the time, was in the air for fifteen hours, and Professor Burgess who was also on the ill-fated *Sbenandoab* (see his account in *The Technology Review* for March, 1924) when she broke away from her mooring mast at Lakehurst more than two years ago, said the voyage of the *RS-1* was the more nerve-trying of the two forced flights.

ROGER BABSON, '98, statistician and business forecaster, cannot at the moment be wholly popular in Florida. In a recent public address in Tampa, Mr. Babson made the firm and unequivocal statement that the great Florida boom was at an end. According to this dispatch, he was quite specific about it and spoke as follows: "Rents and prices in general in the state will drop fifty per cent before the increase in population and the solid development of the state justify another increase. . . . Florida has been very busy in the last few months, but it has been like the two men who kept themselves busy washing each other's clothes. They didn't produce anything. . . . Speculation in Florida land is dead today. The man who denies it is dead himself from the nose up. . . . Bread lines and soup kitchens for realtors are being considered along the East Coast."

The New Republic continues its interpretation, "We do not always agree with Mr. Babson's findings, but this time there seems to be a substantial weight of evidence behind him. Even Charles M. Schwab, who as a professional optimist ranks next only to the great Judge Gary himself, after a tour of the state, had to admit that the boom had stopped. . . . A year ago, any one talking in the Babsonian terms would have been strung up at once to the nearest subdivision sign, and nothing more said of it."

EXPLORATION of the entire 1,000,000 square miles of untraveled Arctic regions is the large order contemplated by Robert A. Pope, '02, according to his announcement made before members and guests of The Technology Club of New York on April 2 when he spoke on the plans, scope and purposes of the proposed All-America Arctic Expedition. As announced in the last issue of *The Review*, the project "will be no joy ride in search of the Pole." The method of approach will be by sea and air and Lieutenant Leigh Wade of World Flight fame will have charge of the aviation end of the project.

Assuming that there was land in the Arctic basin, and strengthening his assumption by the known action of Arctic currents, the flight of birds, and the opinions of explorers, Mr. Pope pictured it as a most important military base, the world's greatest radio station, the

finest point for the establishment of a meteorological station, an airplane landing that would shorten air trips in many directions and a point, which, with the continuing development of flying, would be within twenty-four hours of the centers of civilization.

"Although we wish every success to all other expeditions now planning to start this season, our expedition differs from them all in that they intend merely to make a dash; merely to see and thereby prove the existence of land in the Arctic. We believe there is a vast body of land there. We do not consider the North Pole an important objective any more. We plan to fly over the entire unexplored area, making frequent short trips at high altitudes and increasing their radius to make topographical and scientific surveys. . . . We hope to leave here by boat July 1 and to establish our base at Point Barrow, Alaska. In midwinter the expedition will come out of the Arctic, probably to Fairbanks, Alaska, and go back again in the spring."

Mr. Pope's address followed a dinner given by T. C. Desmond, '09, President of the Club, in his honor and that of Vilhjalmur Stefansson, who spent eleven years in the Arctic, and Lieutenant Wade. In telling of some of his Arctic experiences Mr. Stefansson said:

"I taught Harvard students once that the Arctic was always cold. Now I know many things I taught them about the Arctic were untrue. I have been above the Arctic Circle when the temperature was over ninety in the shade. Eskimos do not, as a rule, live in snow huts — some of them never saw one. I have convinced myself beyond all doubt that life exists in what once was called 'The Area of Everlasting Death.' Now I have finished my own explorations, but I am supporting all Arctic expeditions. I am confident that if land is found in the unexplored region it will be a land of grass and flowers."

WHEN the steamer *Chantier* sailed from New York with the Byrd Arctic Expedition, said to be the most completely equipped organization that has ventured into the far North, she carried in her hold, in addition to airplanes and the thousand and one items necessary for such exploration, two great man-carrying kites developed by Samuel F. Perkins, '09, of Boston.

It was on one of these big kites that Commander John Rodgers, head of the Hawaiian flight, (See *The Technology Review* for November, 1925) made his first ascent into the air. This happened in 1911 when, with Commander Rodgers as a passenger, the kite was sent aloft from the deck of the battleship *Pennsylvania* while she was steaming at full speed in San Francisco Bay.

In addition to their ability to lift a man, the kites may be used for elevating radio aërials and for signalling. They were included in the Byrd expedition to be used for such purposes in case of emergencies. The kites are painted black and white for high visibility in the wastes of the Arctic ice fields. They also have long banners of various colors which might be sent aloft to attract attention.

Commander Rodgers is quoted as saying that had his plane, the *PN-9, No. 1*, of which the navigating officer was Lt. Byron J. Connell, S.M. '25, been equipped with

such a kite it would have been possible to fly distress signals at a great height and that they probably would have been rescued long before the seaplane was finally sighted by the submarine, *R-4*, and towed into Lihue harbor.

UNDERMINED by the ravages of the waves of more than a century and a half the old Henlopen lighthouse which guards the Delaware Capes toppled into the sea on April 13. Here, it turns out, is the story of the frustrated ambition of a Technology man. United States Senator Coleman du Pont, '84, deeply interested in this old colonial light, recently started negotiations with Governor Robert P. Robinson of Delaware to save it. He sought to buy the hulls of a number of old ships, to fill them with concrete and sink them in strategic positions for the light, in the hope that the obstructions they presented to the existing currents might deflect them sufficiently to replace some of the sand which waves had washed away through the years. His project became known a comparatively short time before the end.

Henlopen, one of the most famous lights on the Atlantic littoral, stood through the most dramatic periods of the country's history. A light was burning in this tower when, in 1780, British ships anchored off the Capes. Later, when the British landed they set fire to the light, but although the interior was destroyed the heavy masonry walls withstood the flames and eight years later its beam again shone out over the sea. From that day until but recently the old lighthouse continued its faithful vigil. The sea had moved so swiftly to destroy it that the government had erected a new tower further inland and the little circular room in old Henlopen was dark when, on the night of April 13, the northeast gales did their final work and Henlopen crashed into the sea.

NOW Brukkaros, rather than Quetta, is said to possess the most favorable climatic conditions for the purpose and to be blessed with a more stable political situation. Therefore Dr. Charles G. Abbot, '94, Director of the Astrophysical Laboratory of the Smithsonian Institution, whose arrival in Africa at the head of a National Geographic Society expedition to seek the location for a station to measure the heat of the sun's rays and thereby, perchance, obtain data upon which to forecast weather conditions weeks, even months, ahead, was duly chronicled in *The Review* for last January, definitely plants his hopes on Brukkaros as the site.

This announcement comes officially from the National Geographic Society and evidently supersedes earlier information, published in the last number of *The Review*, in which Dr. Abbot, according to press reports, was quoted as saying that the vicinity of Quetta in British Baluchistan had been chosen.

Brukkaros is a little place on the plateau of Southwest Africa about 200 miles from the Atlantic Ocean and about 500 miles north of Cape Town. The bulletin from the headquarters of the Society in Washington says, "It is near the railway which runs north and south in the uplands of Southwest Africa and less than 100 miles from the junction of that line with the east and west

line which connects with the coast at the port of Luderitz. Two hundred and fifty miles to the north is Windhuk, capital of Southwest Africa.

"A sun observatory requires a dry climate where the sun will seldom be obscured by clouds. One has only to sail along the coast of Southwest Africa, especially toward the south, to realize that there is a land little visited by moisture. The country puts its worst foot — the coastal desert — forward toward the Atlantic. This coastal strip is known as 'the Namib.' Few coast regions of the earth are more desolate. . . .

"Shallow water, low desert islands, absence of harbors, and a dry, sandy shore, devoid of vegetation, combined to make the region so inhospitable to seamen that for centuries they gave it a wide berth. . . .

"The northern two hundred miles of coast region is only a little less desolate than the Namib. It is more mountainous, less dominated by loose sand, and lies in a more tropical latitude. The stream beds are better defined and usually support a growth of bushes and trees.

"Perhaps once in ten years the Namib receives a drenching rain and demonstrates the magic that Nature hides in her drops of water. Verdure springs up all over the parched sands, animals flock in almost overnight, and for a while the former desert teems with game. Soon, however, the sun parches the soil again, the animals disappear, and once more the desert is supreme."

RICHARD H. RANGER, '11, who invented and perfected a device for the transmission of photographs by wireless telephony, sailed on the *R. M. S. Mauretania* April 7 to set up in England the finished equipment of a sending and receiving machine which will place the wirelessly of photographs and printed material on a commercial basis. Mr. Ranger's discovery was recorded in *The Review* for January, 1925, at which time were also reproduced copies of photographs sent across the Atlantic by his method on November 30, 1924. He had been at work on the process since February, 1923. More recently, *The Review* for last March published a holographic message of greeting delivered by the Ranger method from alumni in the Hawaiian Islands to the New York diners at the Phantom Radio Surprise Dinner at the Waldorf-Astoria Hotel on January 19.

In London the machinery, operated on somewhat the same principle as a ribbon on a stock exchange ticker, is to be installed in the British Marconi plant. It is expected to start operation at about the time this issue of *The Review* reaches its readers in Spokane, Wash., shortly after May 1.

CONGRESS willing, the United States Navy, within three years, will have two of the largest rigid airships in the world. Designs for two ships of 6,000,000 cubic feet capacity are to all intents and purposes, complete and congressional approval of the naval appropriations bill is all that is necessary to start construction. The House Naval Affairs Committee has recommended building the ships and at least three Technology men are likely to have important roles in bringing the program to completion.

Starr Truscott, '07, of the Navy's Bureau of Aëronautics and Charles P. Burgess, Associate Professor of Airship Design at the Institute, who as civilian aircraft designers attached to the Bureau, designed the *Sbenandoab*; and Commander Garland Fulton, S.M. '17, of the Construction Corps U. S. N., are now working on designs for the new ships.

The projected craft while having a volume three times as great as that of the *Sbenandoab*, would be only fifteen per cent longer, but the diameter would be fifty per cent greater. This is in accordance with the latest theory that aircraft must be shorter and have greater diameter than those built in the past. The Army's semi-rigid dirigible, *RS-1*, which successfully weathered a winter gale in January (see page 383), was built on that principle. A discussion of the merits and demerits of the new design was made exhaustively in the Review for November, 1925, by Professor E. P. Warner, '17, head of the course in Aëronautical Engineering in his article "Some Reflections from the *Sbenandoab* Disaster."

The proposed ships would be larger by 1,000,000 cubic feet capacity than the two dirigibles now being built by England, but of slightly less capacity than the super-dirigible proposed by Paul W. Litchfield, '96, President of the Goodyear Tire and Rubber Company. (See the February Review, page 193.) Such a ship as he proposes would be 850 feet long, 130 feet in diameter with a gas capacity of 6,500,000 cubic feet.

FROM the deck of S. S. *Leviathan* on March 20, at the start of a European journey in which he expects to make an 8000-mile trip over the airways of the Continent, Lester D. Gardner, '98, Editor of *Aviation*, gave impressive figures to the ship news reporters. American fliers last year covered greater distances than aviators of any other countries, Mr. Gardner is quoted as saying in the *New York Times*, and the total mileage was probably 10,000,000. Reports from 344 pilots made to him showed, likewise says the newspaper, that in 1925 their machines had flown 6,823,730 miles or three times the distance covered by the Air Mail in the same year, and eight times greater than the total mileage of the Imperial Airways, the British line between London and Paris.

Mr. Gardner went further and extrapolated his figures. In view of the fact, said he, that there are 700 commercial fliers in this country, the estimated total mileage for the year must have been much in excess of 10,000,000, and would thus put the United States far in the lead in commercial flying. Plans for 1926 indicated to him that regular transport companies will operate over 3000 miles of air routes.

So said Mr. Gardner on the verge of flying over Morocco, Turkey, Russia and Finland during the spring and early summer.

PROFESSOR EDWARD P. WARNER, '17, Head of the Course in Aëronautical Engineering at the Institute, took a somewhat less sanguine point of view on Mr. Gardner's figures. "It might well be argued," said Professor Warner, "that the town of Newton, Massachusetts, was a greater port than the City of

Boston, because the mileage, in a year, of canoes upon the Charles is undoubtedly greater than the mileage of ocean-going vessels plying from out the Port of Boston. In other words, any comparative figures are always apt to be confusing by reason of a considerable difference in the fundamental assumptions. It is undoubted that the air mileage flown in this country is much greater than is generally appreciated and that the individual pilot is largely responsible, but bare figures are none the less likely to be misleading. It is naturally possible to build up the total mileage to an imposing figure by consideration of the activities of itinerant pilots, and small fixed base operators, who generally possess airplanes with engines of about 100 horsepower and capacity for carrying only two passengers in addition to the pilot. On the other hand, the Air Mail possesses engines of four times this power and machines of the Imperial Airways have power plants of 450 to 1200 horsepower and an average carrying capacity of nine passengers.

"Furthermore, in the absence of regular and stable relations of the Federal Government to flying, figures compiled on total mileage are of necessity of very questionable value. The vast majority of pilots keep no record of their flying operations, and with the best of intentions, there is an inevitable tendency toward the exaggeration and duplication of distances covered. As an example of this, it may be stated that attempts to secure reliable statements of air mileage from Massachusetts pilots (where at least the State Registration Law makes possible a complete list of fliers) have been eloquent of the difficulties attendant upon the makings of such a census."

TWO students, one at the Institute and the other in Brooklyn, N. Y., study together almost every night, although they sit in their rooms separated by nearly 300 miles of space. The answer is radio.

The man at Technology is H. A. Chinn, '27, a student in electrical engineering. The other is L. T. Goldsmith, who is attending the Polytechnic Institute in Brooklyn. Both have in their rooms radio transmitting equipment of their own making. They discuss laboratory experiments. Questions are asked and answered. Goldsmith is a senior and he reports progress on his thesis. Chinn comments. And as if they were sitting in the same room under one green shaded light, these two youths work together.

But Chinn's radio station, which he assures The Review is much better than its official designation — 1-BAD — is not wholly devoted to topics of Technology, for he "works" amateurs in all parts of the world with ease. He talks with Australia, North and South Africa, South America and various amateurs in Europe regularly. Verification cards at his station show he has talked with more than twenty countries.

TRAVELTALKER E. M. NEWMAN, Cape Cod novelist Joseph C. Lincoln, Dean Wallace B. Donham of Harvard, two railroad executives, and — Charles M. Spofford, '93, Head of the Department of Civil and Sanitary Engineering and Chairman of the Technology Faculty, sailed from New York on April 3 aboard the Mediterranean cruise ship, S. S.

Carintbia. Professor Spofford is not the only member of the Faculty to visit abroad during this academic year, nor will he make the farthest journey from Technology. Professor W. Spencer Hutchinson, '92, South African tourist (see page 378), holds that record. His trip eclipsed even Secretary-Treasurer Denison's 10,000 mile Marco Polo tour of Technology Clubs on which he addressed 9,000 high school students. But among those on pleasure or business bent Professor Spofford is unique in that he is reaping the fruits of a most fortunate function which was the feature event of the 1925 All-Technology Reunion. It was on June 11, 1925, that he strode proudly into Mechanics Building as Jamboree Dinner pasteboard-holder number 0996 and heard during the evening the announcement of his name from the platform as winner of the "Mediterranean Cruise" offered by the Raymond and Whitcomb Company through Emmons J. Whitcomb, '11, Vice-President of the company.

On the eve of departure from Cambridge, Professor Spofford agreed with luncheon colleagues that it was the best \$7 investment he had ever made. Said one listener, "Yes, and just think, you got a good dinner that night too."

CLEANLINESS was carefully considered on April 3 at the sessions of the Massachusetts Laundryowners' Association held at Horticultural Hall, Boston. At the morning session Professor R. P. Russell, '22, Assistant Director of the Research Laboratory of Applied Chemistry, outlined the service offered to laundry owners by the Institute.

"There is a threefold object to this service," he said, "First, we want to make savings to laundry owners and increase the efficiency of laundries. Second, we want to get in contact with the various problems of the industry and, third, we are working out a definite program of research to supplement that of the Mellon Institute in Pittsburgh. There is no universal plant and we must use the examples of many plants. We can, however, add the advantages of the outside viewpoint."

Francis W. Davis, '03, President and General Manager of the Pilgrim Laundry Company of Boston was the last speaker at the morning session and took for his subject, "Cutting Out the Blue Stripes." The blue stripes, Mr. Davis explained, had been on mail-sacks for years and, until the World War, no one had thought anything about it. Then somebody discovered how much money would be saved if this needless stripe was removed. Consequently it was decided to omit it henceforth.

TO the all-absorbing discussion on modern methods of heating homes, a subject of deep concern to him who still must shovel coal and juggle ash barrels, may be added the opinions of two Technology men recently quoted on the subject.

Professor Ralph G. Hudson, '07, of the Department of Electrical Engineering, characterized present heating methods as wasteful and inefficient, saying:

"Although it may not be generally known, one of the chief problems in engineering circles today is how to provide a permanent fuel supply that may be used with

convenience and economy. The lack of it at present is an outstanding defect in community life. We still employ solid or liquid fuels and individual heating plants, which means we must provide storage space, endure smoke and ashes and the expense in money and time of caring for furnaces."

And Eugene C. Hultman, '96, Chairman of the Massachusetts Commission in the Necessaries of Life, who recently advocated favorable rate legislation for gas heating service in Boston, had this and much more to say on the subject:

"The introduction of gas on a considerable scale would bring into the field of household heating a competitor whose product is nearly an ideal fuel, the supply of which has not failed in the memory of man despite coal strikes, and whose quality and price is controlled by public authority. The presence of such a competitor in the field ready to take advantage of increases in the price or decreases in the quality of other fuels would tend to stabilize both the quality and price of all domestic fuels.

"Gas was originally introduced into this section of the country as an illuminant, and when electricity replaced it in this field, the use of gas for cooking purposes became common, until it now displaces over a million tons of anthracite annually."

A MAN with dark slouch hat pulled down over his eyes, his hands thrust deep into the pockets of a gray overcoat, within the month was seen on the grounds behind the Institute. He moved swiftly back and forth, puffing slowly at a briar pipe.

Surveyors came. Transits shot. Stakes were driven! He raised his hand and there came a strange machine supported on a tripod. Came an engineer, a soil mechanic hose, lengths of pipe. Then began some drilling. The pipes sank into the earth and water cleared the way. Down twenty, thirty feet! The man in the slouch hat puffed and watched. Down still deeper — fifty feet! He nodded and the tripod moved to another location. Again the drills probed the vitals of the earth. And so it went day after day, the silent figure watching the operations, smoking thoughtfully. Nodding now, disappearing for a time.

And at each hole samples of the borings were treasured and carried in urns into the Institute to be hidden away. Why this drilling into the earth? What does the future hold? Oil? New buildings to rise where now only dandelions grow? The mystery man appears again. He fingers the silt flowing from the hollow drills and nods, looking up. He is Major Albert Sidney Smith, Superintendent of Buildings and Power. But why he is doing all this he will not say.

WE remind our readers that the publication of *The Review* is, according to schedule, omitted in June. This May issue of the magazine is number seven of Volume XXVIII. Number eight, the last of the Volume, will accordingly follow, bearing the date of July, and will be placed in the mails on the fifth of the month of the date of issue. Volume XXIX will greet its readers after the summer vacation, with the November issue, on October 25.

Mexican Chaos and American Responsibility

A frank discussion of the present politico-religious disturbances seen at first hand

By EDWIN S. BURDELL, '20

Former Instructor in English and History

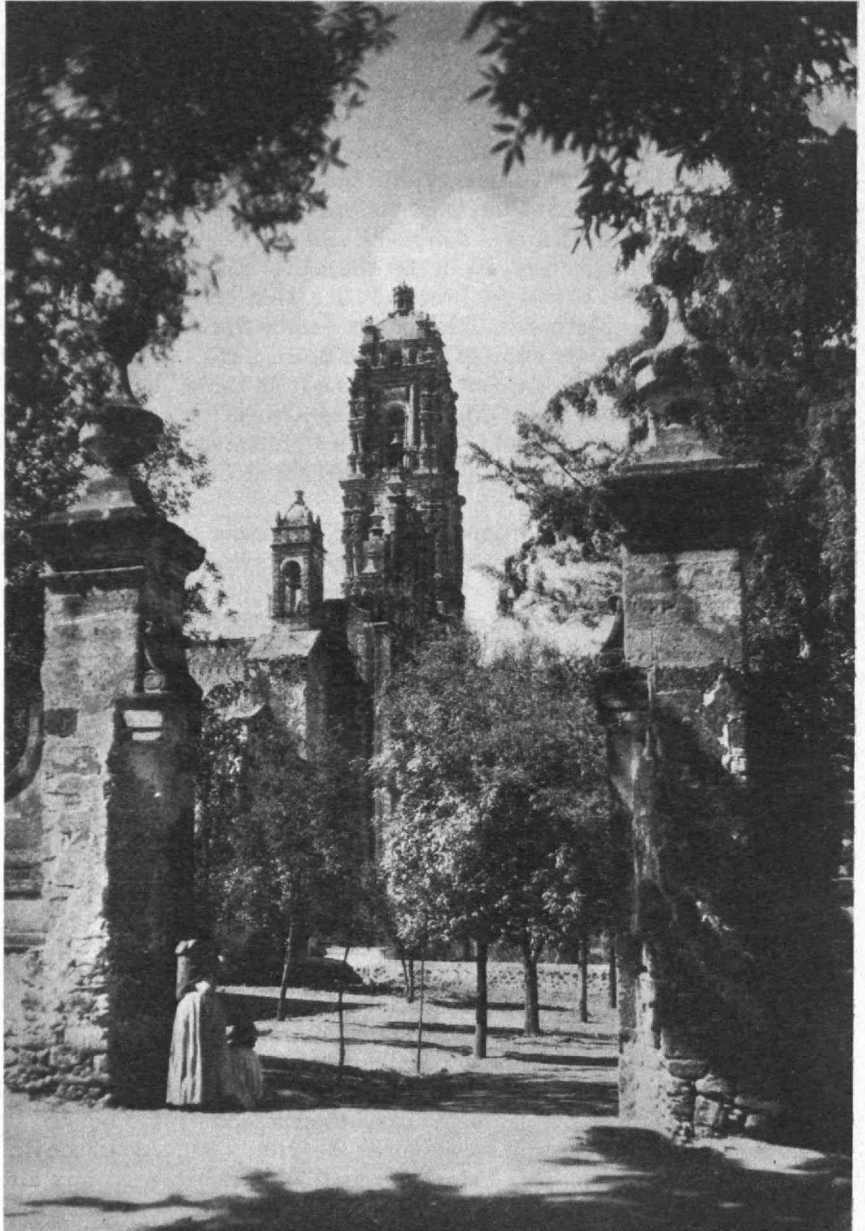
WHERE Americans have lost out in the past in Mexico has usually been in their unconscionable exploitation of the country, the absurdly low wages they paid, their bare-faced cheating of the ignorant native, and their ill-considered interference in the political affairs of the country. That the oil interests in Tampico precipitated the downfall of Diaz is accepted as a fact. Diaz was afraid of the great American oil companies and refused to grant them unlimited concessions to the exclusion of other foreign or native oil developments. Finding that they could not dictate to Diaz, and finding also that Diaz's former unflinching suppression of insurrection was weakening, they financed Madero. The revolution took place in May, 1911, and it was said when Diaz sailed out of the harbor of Vera Cruz, a man of eighty-one, after thirty-one years of reign in Mexico, that he wept, not for himself, but because he saw the vision of a war-torn nation swept from peace and comparative prosperity into bloodshed and poverty. His vision was not long in being realized. Madero gave place in February, 1913, to Huerta, and Huerta to Carranza in July, 1917. Carranza had no personal prestige whatever

and no influence to hold

the northern states although he himself came from Monterey. Villa did have a standing in that section and threatened Carranza's power at Mexico City. It was to the latter's interest therefore to dispose of Villa at all costs. Irresponsible sporadic raids had been made over the American border which had raised indignation throughout the United States. What could be more opportune, then,

than a devastating raid which could be ascribed to Villa, and on that basis Carranza could call upon President Wilson for military aid in the pursuit and capture of Villa, and Carranza would be undisputed master of the northern situation. That is precisely what happened and subsequent research seems amply to prove that Villa and his main body were not within fifty miles of Columbus, New Mexico, on March 9, 1916. Then, when Pershing, with five thousand men, crossed into Mexico and was in hot pursuit, it appeared to Carranza that he would lose prestige by allowing the hated gringo too much success, so, panic stricken, he told Wilson in so many words that if Pershing would withdraw he, with Mexican soldiers, would apprehend Villa and put him out of business. His government would be saved.

Woodrow Wilson's policies came in for considerable execration in Mexico. It began with the Tampico



THE CHURCH AT TEPOTZATLAN

A country blessed with one such glory should be, one would think, continuously happy



EDWIN S. BURDELL, '20

Known in Ohio, it would seem by newspaper report, as the "Columbus Globe-Trotter"

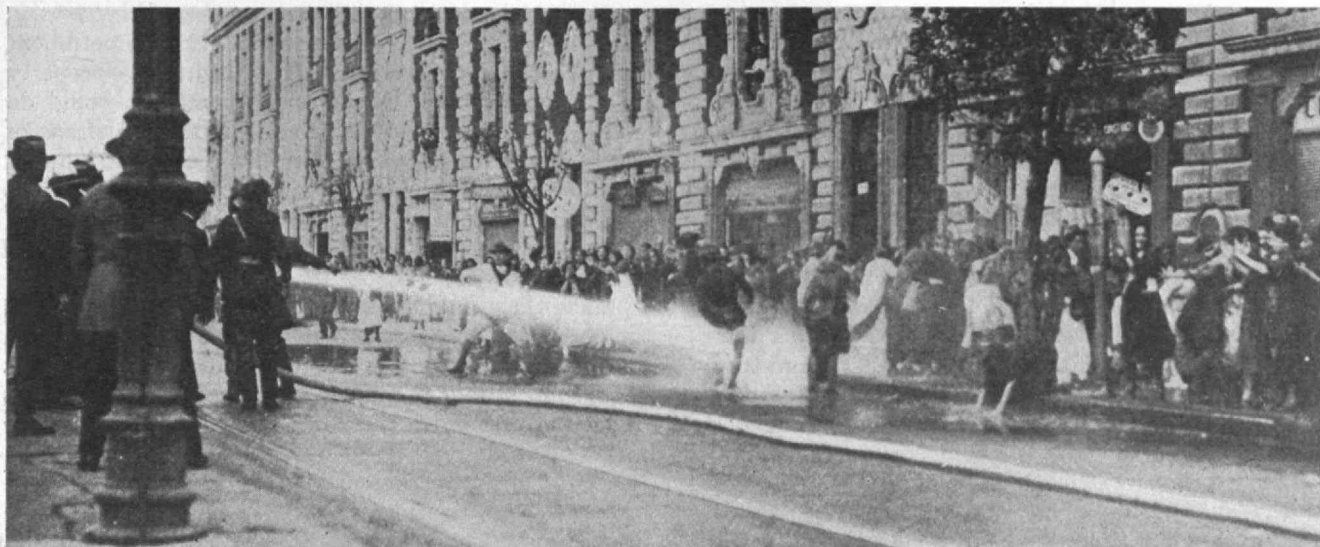


Photo by Times Wide World

THE POLICE DISPERSE SOME RIOTERS

The fire hose was frequently used, as Mr. Burdell relates, in dislodging rioters, usually women, during the recent religious disturbances in Mexico City

incident when he refused to protect American citizens. On April 21, 1914, an American tanker, with fleeing women and children on board, was threatened with instant shelling by a Mexican gun boat if she left the harbor. A German destroyer in the harbor sensed the situation and her commander sent an officer with a German flag to take the ship out of the harbor. Not once but many times has the American had to pin a German or British flag on his coat lapel to escape insult and assault. A Mexican respects force and a man or a country who has it and does not use it is contemptible, meriting nothing but execration. The gesture at Vera Cruz as retaliation of the arrest of marines from the U.S.S. *Dolphin* at Tampico is another case in point. Every foreigner and most of the respectable non-political Mexicans hoped for nothing better than occupation of Mexico City by the Americans.

If the senseless internecine strife between petty politicians had been settled then and there by a wise American civil administrator in Mexico City, backed up by the army, Mexico would have been spared years of bloodshed. To send the Pershing expedition, virtually on foot, 500 miles from the U. S. border, across deserts and arid mountains when a small force could have proceeded 200 miles by truck and railroad from Vera Cruz and have accomplished a feat of stabilization, was a tragedy of misconception and faulty statesmanship on the part of President Wilson.

I

The Mexican Constitution, enacted in November, 1917, under the Carranza government, is the immediate cause of the political uncertainty in

Mexico at the present time. The general attitude of the selfish, self-seeking Mexican politician, always in the background, colors whatever action the government may take. It is well to get an idea of the perverted sense of democracy that obtains in most Latin American countries and in Mexico especially.

Self-government means self-control, democracy means a government of the people, for the people. It is on these two principles that the Latin race fails utterly. True, they aspire to these ideals and the tragic history of Latin America for the past hundred years since their revolt from Spain attest this fact, yet the record of effort and accomplishment is one of bloodshed, corruption and failure. Furthermore, there has never been such a thing as a "government by the people" in a



THE CATHEDRAL OF MEXICO

Completed in 1667, on the ruins of the famous Aztec Temple, and often referred to as the crowning achievement of the Spanish Renaissance in the New World

Latin country; it has been a government by the man who had the largest force at arms, who dominated the situation physically rather than morally or intellectually. Patriots like Hidalgo of Mexico suffered an ignominious fate at the hands of usurpers who wrested from them the liberties they risked their lives to attain. No sooner was Mexico released from the bondage of Spain by the priest-patriot Hidalgo than the first president, Iturbide, declared himself emperor and war was on again. No Latin patriot, however splendid his ideals, was able to rise above the dead level of mediocrity and corruption of his fellow men. Diaz gave Mexico a peaceable, stable government in which civic reform and industrial development flourished but his régime of thirty years was in no sense a democracy. It was a benevolent autocracy by a man who was sufficiently wealthy in his own right to refrain from corrupting the government to his own aggrandizement.

To the student of government, the Mexican Constitution of 1917 reads like a bill of rights, a declaration of freedom from centuries of foreign domination. In a word, it is Mexico for the Mexicans, a perfectly logical and just instrument of government provided the promulgators and enforcers are sincere in their intentions. Every past and present tendency of the federal governments of Mexico seems to indicate the contrary; seems to indicate that they wish to exclude the foreigner, not to give the benefit to the people but to the politicians temporarily in the saddle. With the foreign interests excluded or submerged, the politicians in Mexico City can do their work without thought of interference; for they know that with a small show of physical force and a false prosperity that they can live their day, make their stake, and retire from the field with their loot. Such is the delusion and perversion of democracy in these Latin lands. A simple, primitive, kindly folk, exploited by ten per cent of their number and held under conditions of poverty and ignorance quite as unspeakable as those that existed in the days of the Spanish Colonial Empire.

At the present time the governor of the individual states is about the most reliable representative of the law to tie to. He is interested in the prosperity and development of his state, sometimes for very personal reasons but, nevertheless, his constituency is very near him and their interests are nearer his interests than are those of the federal government at Mexico City. The present Calles government, elected and supported by a radical labor element, may pass socialistic legislation which will frighten and keep out American and foreign capital but the local governor who has no radical interests to placate has, as a rule, a very friendly attitude toward anything that will bring employment and development of the resources of his region. Hence the northern states of Mexico, Sonora, Chihuahua and Coahuila and the northern industrial center of Monterey have little patience with the bolshevistic mouthings at Mexico City. The North Mexican is at once smarter, cleaner and a better fighter than his brother to the south. He has come in contact with the prosperity and industry of the American border states and he knows that without capital his own country will remain in the same dormant condition it has always known. The Northern Mexicans

realize too that capital, to be attracted to their country, must have confidence in the continuity of government and be assured of the respect of their rights as to property and person. Hence, an American company would do well to placate the governor and military chieftans of the state in which he operates. Protection at hand is worth twice a promissory army five hundred miles away in Mexico City.

II

Since the Conquest of Mexico in 1521, the Church has been one of the controlling factors in Mexican life. The recent persecution of the Church, therefore, is significant in that the tables are turned and the Church is getting very much the same kind of medicine in 1926 as it doled out in 1526. The method, however, of the present Calles government in carrying out the terms of the 1917 Constitution is quite as indefensible as the action of the Church during the days of the Inquisition back in 1575, but it seems to be the inexorable law of fate that misrule and oppression by one group will sooner or later be visited upon that same group. In this case it has taken four hundred years for the pendulum to swing to the opposite extreme. Fate is no more kindly or just in its tendency to make action and reaction equal and opposite, yet no one can explain the apparent unwarranted closing of parochial schools, expulsion of Spanish priests, and threatened arrest and imprisonment of the Archbishop of Mexico as the operation of the compensation swing of that pendulum.

The influence of the Church had quite naturally been used for the increase of its own power and wealth. Many of the Viceroy's during the Spanish Colonial period of 1521 to 1821 were prelates of the Spanish Church who sought the position for selfish purposes with the idea of repairing their dilapidated fortunes in the New World.

Miguel Hidalgo, a parish priest in a small village in the State of Guanajuato, was an outstanding exception to the selfishness of the clergy. He had the idea of freedom for Mexico nearest his heart and on September 16, 1810, from the pulpit of his church, he announced to his parishioners that Spain was no longer Spanish, but was French and that the time for Mexico to be free had come. He rang the famous liberty bell which now hangs in the National Palace on the public square of Mexico City and is as much venerated as our own Liberty Bell in Philadelphia. The zealous priest patriot gave his stirring appeal known since as "Grito de Dolores" which was, in substance, "Long live our most Holy Mother of Guadalupe! Long live America, and death to bad government." Historians say that making the struggle a religious war as well as one for freedom was, however, more the promptings of a pious mind than a premeditated stroke of diplomacy. The idea filled the Indians with enthusiasm and in ten days Hidalgo was declared Captain General with 20,000 troops. With the adhesion of intrepid fighters and commanders of marked ability to the cause of independence, the struggle continued until 1813. The cause of liberty soon languished with the murder of its leaders and in 1821 Iturbide, a former henchman of the Spanish Viceroy, saw his opportunity, seized the government and declared himself "Emperor".

His day was a short one for he was forced to abdicate in March, 1823, and was shot in July, 1824.

The Mexican Clergy, who were largely Spaniards, had opposed the revolution in Mexico and had denounced as heretical the idea of independence or separation from Spain. Their influence has ever since been toward adhesion to old world politics and union of church and state. Thus, through centuries of misrule and duplicity on the part of the Church, the Mexican student of government came to the conclusion that the Church should be rid of its foreign political influences, and hence the article in the 1917 Constitution which forbade the preaching or functioning of any clergy who are not Mexicans.

necessary harshness of the soldiers in carrying out the terms of the law.

III

Since 1887 in Mexico the churches and contents have been the property of the state and are "loaned" to the clergy for use. Inventories are taken at certain times of the contents and reports made to the Minister of Finance. But to show the stupidity of the government officials in needlessly antagonizing the public I would cite a spectacle I saw in Mexico City on February 23 in the District called Colonia Roma in front of the Church of the Holy Family. An important Lenten service was to be held that afternoon. Government

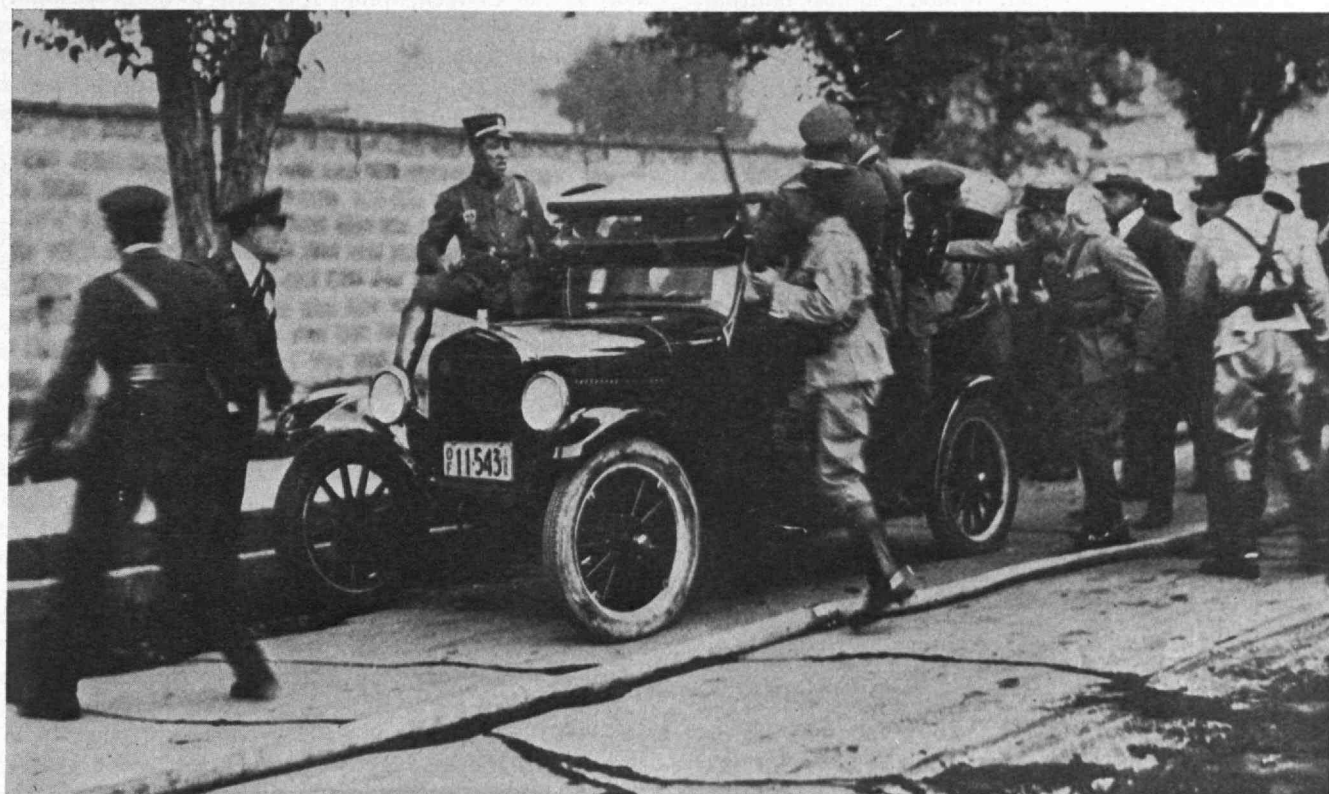


Photo by Times Wide World

THE EXPULSION OF THE PRIESTS

Was usually accomplished in this manner, by first taking them from their quarters under heavy police guard to the nearest district headquarters

The effect is far-reaching, as the world is just beginning to find out with the recent enforcement of the provisions of the Constitution by the Calles government. Every day Spanish-born priests are being deported, their churches and schools are being closed, and their property confiscated by the State. While it is all quite legal, apparently the federal government loses sight of one important factor and that is the resentment of the millions of simple and intensely devout Mexican peasants. One has only to visit the country churches or the sacred shrine at Guadalupe to be impressed with the genuine religious fervor of the great mass of Mexicans. The political intrigues of the church effect this folk comparatively remotely and they see, in the turning out of hundreds of orphans into the streets and the closing of the convents at the point of the bayonet, only a new form of persecution. Even the newspapers of Mexico City are mildly protesting the heartless and un-

agents, however, arrived about 2:30 and demanded the right to take an inventory of the church property and that the public be excluded from the church. The priest in charge therefore closed the church doors just as the faithful began to arrive. Thinking they were too early, a number gathered round the church entrance and waited for about a quarter of an hour. Seeing that the doors were not opened, the rumor began to circulate that the church had been closed and that the priests had been imprisoned. The news soon spread throughout the Colonia Roma, and in no time there was a crowd of about two thousand stationed near the church, most of them being women, and many of them members of Mexican society. Traffic was soon held up by the large crowd, and soon various shouts and cries were heard. Thereupon two policemen on duty at the corner thought it best to advise the Tenth Police Station.

Immediately on receipt of the news, the head of that

station, Carlos Flores, a man of advanced age, took a Ford and alone drove to the scene of the disturbance, pulling up a short distance before reaching the church door. The official blew his whistle in order to get a passage to the church where he intended to speak to the priests. The fact that a police official was on the scene seems to have roused the wrath of the women, or at least a number of servants amongst them, and they proceeded to set about the unfortunate officer. He received first a stone in the face, which was followed by blows and kicks. One woman, who had a chair with her, broke it over the officer's head. He would doubtless have been killed except for the intervention of some of the more humane bystanders who got him away from the infuriated crowd. Bathed in blood, almost fainting, he was taken to the medical section of his own station.

At about quarter past four there were some three thousand persons on the church corner, while all the nearby balconies were crowded with interested spectators. Then the Red and White Cross ambulances put in an appearance ready to handle any casualties.

The crowd, nearly all women, then formed a demonstration, and marched in correct formation to the building of the Ministry of the Interior. Meanwhile a number of women mounted guard around the church entrances. Next to come to the scene was a fire brigade apparatus manned by fifteen men. The firemen connected up their hose and began immediately to play water upon the main entrance wherefrom women, young girls and children were soon dislodged; then the water was turned on the street round the corner upon a large crowd stationed there.

Next the police came on the scene in force; on motorcycles, in camions and in autos they came, with twenty mounted men. They were in the personal charge of General Roberto Cruz, Inspector General of the Federal District Police who was accompanied by another general, a lieutenant colonel and other officers.

In spite of the water, the crowd did not disperse and the others were given orders to fire a volley in the air; in this manner more than a hundred and fifty cartridges were used, causing a veritable panic. The scene was picturesque, to say the least, and not only did the multitude get properly soaked, but the police officers came in for a share of the water. Articles of various kinds soon began to fly around, including ladies' bags and other handy implements.

By this time the police had penetrated the residence of the priest in charge of the church and he, together with a Spanish cleric, were taken to the Inspector General of Police for the purpose of declaring regarding what had happened.

During the whole of the incident, and especially when the shots were fired, the greatest panic reigned in the neighborhood, indeed to such an extent that the stores in the district were closed down.

Matters had by this time quieted down somewhat on the Orizaba front of the church and the crowd, increased by many of the curious who had turned up to see what was going on, moved to Bucareli and stationed themselves in front of the Ministry of the Interior where they began to shout lustily for the re-opening of the church. Another fire hose was then connected up and the crowd

was given one more thorough watering. Reserve police, mounted, succeeded in clearing a large number of women and also arrested several young men who were then at the head of the demonstration.

During the watering in front of the Ministry of the Interior, two men were removed after suffering minor injuries and two women in a fainting condition were also attended to.

There is no doubt that one of the most appealing platforms of a prospective revolutionary leader in Mexico today would be to espouse the protection of the Church. The socialist, syndicalist group would never rally to such a platform, of course, but the rank and file of Mexican people, in spite of their centuries of oppression by the Church, would still rally to its protection.

An interesting international complication is the closing of the Protestant schools and churches functioning under American clergymen. It is understood that several American denominations have made representations to the State Department protesting such action. So far as is known, our Ambassador, Mr. Sheffield, has not taken up the matter with the Mexican Government. There seems to be little doubt but that the government is quite within its rights to bring about such expulsion whether the churchmen are Spanish or American and it only remains to be seen how diplomatically they handle the situation.

IV

What is the way out? An answer to that question is difficult. I believe that our responsibilities under the Monroe Doctrine compel us to maintain a friendly and helpful attitude toward Mexico. I believe it is altogether wrong to keep shifting our diplomatic recognition. It may be contrary to diplomatic usage but our unique position in regard to our smaller sister republics to the south makes it imperative that we keep at all times an intelligent official representative at the capital of each of these countries. Our Latin American diplomatic agents should be more in the nature of permanent expert advisors and counsellors. Where necessary they should step in even as civil administrators when revolution and brigandage threaten. The President of the United States should be given unlimited power to handle any situation that might arise without waiting for Congress to give authorization. Our relations with our neighbors to the south should be friendly and sympathetic. Our State Department should be scrupulously careful to see that unprincipled and rapacious interests in the United States are not allowed to pervert and misrepresent our entry into the private affairs of the smaller republics. They are suspicious of us and rightly so, for the last century has left a trail of exploitation and corruption in the wake of opportunists who seized upon a temporarily unstable governmental situation to acquire by questionable methods the cream of the mineral and agricultural concessions of the countries. We must have a change of policy and more especially a change of heart for only by a warm heart and firm hand can we, as Anglo-Saxon North Americans, keep the faith with our Latin American brothers. We fought in Cuba and again in France to make the world safe for democracy — let us not forget our responsibilities to keep it so in these piping days of peace.

The Fine Arts of Work

*What is your idea of success? A sane answer is set forth in this paper,
which was an Aldred Lecture on April 9*

IT is a great privilege to speak to the Immortals. To be young, Hazlitt tells us, is to be one of the Immortals; for no young man believes he shall ever die. "The vast, unbounded prospect lies before us."

You have elected to come to the Massachusetts Institute of Technology because you are determined to win success. Had you desired merely to gain entrance to the fellowship of scholars, you would have selected a neighboring institution — Harvard, or Tufts.

I

Now, if success is what you want with all your heart, you will succeed. This warning comes from two men of the world. Goethe says: "We had better take care what we desire in youth, for in age we will get it." George Moore, always impertinent, corrects the master thus: "If we desire in youth ardently, our desires will be fulfilled in old age." How shall youth direct and strengthen desire, so that the wise dictum shall turn out to be the gift it seems; not the judgment it portends?

During the darkest days of the World War, I was in the town of Dunfermline, the birthplace of Andrew Carnegie. Baillie Norval, the manager of Mr. Carnegie's local benefactions, pointed out the little house in which the future iron-master was born, and told how the lad looked longingly from his dormer-window over the high walls of the estate whose gates he might not enter. Some day, the boy dreamed, he would come back, buy the tight-locked estate, and open to the public those forbidden gardens. So he did. That afternoon I sat on the grass at a band concert, paid for from the Carnegie fund, and enjoyed by thousands of American blue-jackets, whose ships, built in part from Carnegie steel, formed a portion of the eight miles of war vessels I had looked down upon from the bridge across the Firth of Forth. The desire of Mr. Carnegie's youth he obtained in old age.

What we desire we work at. I presume you seize the opportunity afforded by life in Boston to attend the

By CHARLES MOORE
*Chief of Division of Manuscripts,
Library of Congress*

FEW people are privileged to speak with the authority of Charles Moore on the Fine Arts as they affect the practical life. In this article he relates a few of his multitudinous experiences, and draws from them a conclusion with which all Technology men, if they make any pretense to a reasonable breadth of culture, must agree. Mr. Moore draws his authority from practice. He is one of the original members of the National Commission of Fine Arts, and has been its chairman since 1915. He is an incorporator and life member of the American Academy in Rome; a member of the American Institute of Arts and Letters; of the board of governors of the National Institute of City Planning; an honorary member of the American Institute of Architects; a director of the American Federation of Arts. For seven years he was President of the Detroit City Planning Commission. He knows, you will observe, whereof he speaks.

Symphony Orchestra concerts — or at least the Pops. Probably you have never noticed the player who sits next the concert-master. For years he and I spent vacations on Cape Cod. For me one of the charms of those summers was the music made all day and all evening by my friend. His cigar might go out, and generally it did, as he ranged up and down the music room made from a barn; but his violin never ceased singing. That was his method of self-expression. He was not working to keep his fingers in shape. He had reached up into the fine arts of his profession. He loved his work.

I presume, also, that now and then you go to the Boston Public Library, that rarest product of architect, sculptor and painter. During the last ten years of the architect's life, I was much with him in Europe, in Washington and in New York. No one could order better dinners or tell more interesting stories; but his mind was ever creating and planning beautiful structures, like the War College, or the Pennsylvania Station in New York, or the restored White House. Each one he worked out with all the exactness of a problem in mathematics. At Harvard he played base

ball so well that James Russell Lowell implored his father to allow him to remain in college long enough to play the grand match of the year. For, writes the poet, "what is the Nine but the muses in disguise?" In Paris, he created a sensation by an unconscious display of American skating, in which art he was proficient. Although his parents were making sacrifices to send him abroad, they urged him to spend more money on fun. Of all his enjoyments, Charles McKim enjoyed most his work. Into it he put the charm of a rare personality. By so doing he has made others enjoy it.

All of you desire to be great. Wilkie Collins says that every man is the greatest living *something*, if you can only find out what that something is! Today the new education helps the boy to find out his own capabilities, and aids him to develop those capabilities. The teacher no longer instructs the youth, but shows

him how to instruct himself. Thus work becomes an enjoyment, and rest results from achievement. Herein lies the promise for the future of American scholarship and training. Unless a boy starts out on his life work with the ability and the desire to use his mind as a tool, the amount of information he has acquired in four years will evaporate in half that time.

Sometimes the discovery of one's vocation comes late in life, as with Conrad, the novelist. He spent an ordinary lifetime in sailing ships, and reached maturity before he could read and write the English language. When he did begin to write, the sea simply gave him the vehicle for expressing his thoughts about life as he had seen it lived by all kinds of people, under the most diverse and unusual circumstances. Interest lies not so much in his experiences as in his interpretations of those experiences.

Sometimes necessary work is a task. Many a man has been tied to uncongenial labor in order to support himself or his family. Thomas Edison did not altogether relish selling papers and peanuts on the local train running from Port Huron to Detroit; and so he set up a printing office in the baggage car and published a newspaper. That was his first method of escape. I knew a United States Senator who boasted that he began life by selling peanuts. The trouble is that he kept on selling peanuts all his life.

II

Pleasure in work differs from the passive enjoyment one gets from a play or a book. Pleasure in work comes from active participation; often from a good fight. All fights are not good. Sometimes you get hit below the belt, and there is no referee but the indiscriminating public, which usually applauds the winner, fair or unfair. That is the bitter portion one has to swallow. From an experience of a quarter-century, I would say there are more fights in the fine arts than in any other business with which I am acquainted. The proportion of fights won, however, is sufficient to give zest to the occupation.

Often as I come along the esplanade at evening I beguile the progress by playing solitaire with Mr. Bosworth's big and little domes of the Institute, which make kaleidoscopic changes and rearrangements as one advances. I do not know a more beautiful sight than that walk into the setting sun. There is the spaciousness of the great composition, the quiet and restfulness of the broad expanse of water, the comparative regularity of the sky-line, and the gentle ascent of the friendly hills behind which the sun goes down in glory ineffable. As night descends upon the town the strings of light creep along the great basin, marking its impressive outlines — first the opulent Boston lights and then the economical Cambridge lanterns. By exercise of will one can even shut out the few obtrusive and impertinent electric signs. And my mind goes back to that long and bitter fight against this great improvement that was put up by the denizens of Beacon Street. I saw much of the President of this institution when he was leading that successful fight to reclaim the ill smelling mud flats. Now it amuses me to observe how long the celestial ire of Beacon Street burns; so that even to this

day the houses turn their backs on a sight superb enough to call one to Europe.

When any man, be he architect, engineer, artist or scientist, attempts to use his imagination, he must gird himself for a fight with the self-styled practical man. Yet imagination is the beginning of all great work. President Merriam, of the Carnegie Institution in Washington, tells me that he is preaching the doctrine that all progressive scientists are idealists, seers of visions, dreamers of previously unthought of solutions. But — and it is a large but — they correct their theories by facts. Your hard-headed man who scorns the use of the imagination stays in the valley. He never reaches the heights. He never enjoys his work. His aim is to make money in order to buy enjoyment — rest, or politics, or travel, or power. He would better far keep on making money, for he does enjoy doing that, and by so doing he gives employment to others who may themselves take pleasure in their work.

One of the very greatest men I ever met was A. J. Cassatt, who had recently been recalled, at the time of which I am speaking, to the Presidency of the Pennsylvania Railroad. The United States Senate Park Commission was in Europe in 1901, studying foreign capitals with the purpose of applying the lessons learned there to the improvement of Washington. There were Mr. Burnham, Mr. McKim, and the youngest Olmsted; and I went with them to supply Washington local color. We had reached the conclusion that the whole scheme of improvement hinged on the removal of the tracks and station of the Pennsylvania Railroad from the Mall, thus restoring the park connection between Capitol and White House, as planned by Washington and L'Enfant in 1792. Yet the rights of the railroad to that strategic position had lately been confirmed by Congress. We planned to meet Mr. Cassatt in London, take him to Paris, set him on the terrace overlooking the Place de la Concorde, and ask him, as man to man, if it would not be a crime to run railway tracks across that composition, which gives unity and grandeur to the capital of the world's taste. If such a mutilation of Paris was unthinkable, was not the mutilation of Washington equally so?

Mr. Burnham, as the architect selected to design the Pennsylvania Station, was sent to bell the cat. In an hour he came back with this message from the Pennsylvania's president: "Since you gentlemen left the United States the Pennsylvania Railroad has secured virtual control of the Baltimore and Ohio. If Senator McMillan will obtain from Congress an appropriation of \$1,500,000 towards the cost of a tunnel under Capitol Hill, we will build a union station on the site of the Baltimore and Ohio depot, and will remove tracks and station from the Mall. The Pennsylvania Railroad will not block a great national improvement such as you gentlemen contemplate."

The man who ran a railroad under two rivers and the City of New York was a great engineer and a great citizen. He was also a great idealist.

III

No two people, I presume, would agree entirely as to the conditions of success. Each person draws lessons

from his own experience and believes them valid universally.

During fourteen years of close association with the United States Senate, I believe I have discovered the conditions of success in a legislative body historically more powerful than any similar assembly the world has seen.

First, oratory, although it may fill the galleries, never changes a vote. Second, more measures are lost by the lengthy advocacy of the mover than by attacks of opponents. A wise old Senator admonished a newcomer thus: "I suppose you don't want to set up for an orator, which seems not in your line. You want to pass your bills. Then don't talk about them. If questions are asked, make the explanation as short as possible. You will feel the temper of the Senate and know when to press to a vote." The advice proved to be excellent. The only pity was that the giver did not himself act upon it. Third, know more about your subject than any one around you knows. Establish your reputation for never discussing a matter with some phase of which you are not thoroughly familiar.

Fourth, and greatest — greater than all the others combined — be absolutely sincere. The Senate is a small body. Like the House of Lords in England, it does business by unanimous consent; and not one-tenth of its business is political. A new Senator usually comes into the body with a large measure of conceit. The wiser he is the more quickly he finds his level. Having found it, his task is to gain the confidence of his fellow Senators. Over and over again I have seen successful politicians, lawyers, or business men come to the Senate and expect to start there with the benefit of their accumulated prestige, only to fail, often permanently, by some display of insincerity. The men on whose shoulders the conduct of the enormous mass and variety of the nation's business rests are rarely heard in the Senate, and more rarely are exploited in the newspapers. Talking legislators, like barking dogs, have no bite. The real, the ideal Senator, is that one who in committee room and on the floor has established his reputation among his fellows for intelligence and sincerity.

You have observed the same thing. How rarely the admired school leader becomes also the college leader. When he does, it is because on entering college he has begun again, by intelligence and sincerity and modesty, to build up among his new associates the character he had established in his school. Brander Matthews tells the story of a youth who was introduced to a British prime minister as a modest young man. "Ah, yes," said the prime minister, "what has he done to be modest about?"

During the building of the Lincoln Memorial, and before it was open to the public, I often took interested persons to see the work in progress. It was rare indeed that these visitors sought the ideas and purposes of the artists. Almost invariably, from the Prince of Wales to the humblest college graduate, each had his criticism. Sometimes, when the self-sufficiency of the critic became insufferable, I could not help repeating the aphorism of John La Farge: "You do not criticize a work of art. A work of art criticizes you." After that there was silence for a space.

IV

Owing to the haste with which our Unknown Soldier was buried, we covered him with a hundred thousand dollars' worth of oratory and flowers, but we have never finished his tomb. His body has been deposited in a cavity made in a pedestal. Meantime, a large fraction of the population, including statesmen and women, have designed his tomb — in the newspapers or the Congressional Record. Each one thinks his particular idea is universal. The notion that the designing of a work of art which should make the widest possible appeal may properly be given over to artists who have established their ability to attain such a consummation is scarcely thought of.

In the Pantheon at Rome is this inscription on the tomb of an architect: "He did nothing that altogether satisfied him." No one better than the sincere worker knows his own shortcomings. And yet there are satisfactions. During that same journey to which I have adverted, one hot June afternoon, four of us were sitting in the shade of one of those great arches, impressive even in ruins, at the Baths of Caracalla, in Rome. Mr. Burnham knew that he was to build a railroad station in Washington, but did not dream that the opportunity would come to him to build each of three central arches in that station greater than the Arch of Constantine, or that for location and landscape setting his building would surpass any work of utility ever created by an architect. And Mr. McKim's most fanciful dreams never shadowed the fact that to him would come, with no premonition, the commission to design a building with a central feature of the same dimensions as the nave of St. Peter's, and of a total area greater than that of any structure ever built at one time — the Pennsylvania Station in New York. Nor did the young Olmsted look forward to the day when, on the hills of California, overlooking the Pacific, he would be called to paint a landscape, using the actual woods and lakes and valleys — a landscape in which people should live and work amid ideal surroundings. Trained and inspired by their own success at the World's Fair in 1893, the genius of these three men flowered in their individual works, while their combined talents wrought the ideal plan for the development of the Nation's Capital, that is slowly unfolding after two of them have gone to their reward.

I trust that each one of the prospective architects here present may have the opportunity to rival the great domes of St. Peter's in Rome, the Duomo in Florence, St. Paul's in London, the Pantheon in Paris and the Capitol in Washington. If that seems too remote, let us say Charles Bulfinch's dome of the State House or Robert Peabody's Custom House tower. Whether or not such commanding opportunities fall to the lot of any one of you, undoubtedly the chance will come both to architects and engineers to build structures that will dominate large areas and be seen from afar. It is important, then, that you begin early to think on the question of domination. As you take your walks about Boston, ask yourselves the question as to how you would treat the same problems if they were presented to you.

V

More important than domination is subordination. In Washington the dome of the Capitol, white by day and golden at night, dominates the Nation's city. When the Library of Congress was built in 1897, the architects undertook to make their smaller dome compete with the big ones, by gilding it. The result was a disturbance akin to that made by an unruly child at table. By suffering the gilding to tarnish the noise has been quieted down but not stopped entirely. When Mr. Burnham came to build the Union Station, which rivals the Capitol in size, he not only studied, but fought to maintain, the essential dominance of the Capitol dome by depressing the site of his building to the very extreme that railway conditions would sanction — and then some more. So, too, the dome of the National Museum, already constructed, and the echoing dome of the Department of Agriculture, still to be built, fall into their subordinate places, just as the dome of St. Peter's exercises dominion over a hundred domes of Rome. As you go along Commonwealth Avenue, notice how McKim, Mead and White adapted the cornice lines of one of their buildings to suit those of the neighboring house. And again, regard the way in which purposely the new building at the corner of Massachusetts Avenue ties into the Harvard Club.

The custom of the engineer is to think of the architect as the person who comes in at the end, to paste useless ornaments on his structure. Accordingly the engineer resents the architect. Heaven knows that the architect has sins enough of his own to answer for. Not infrequently he turns around and for the treatment he has received from the engineer takes revenge on the landscape architect. Not long ago I said to an architect whose work you see every day, whether you notice it or not: "These new buildings of yours give a fine opportunity for landscape treatment by the young men in the school of landscape architecture." "Oh, no," he replied, "they're not practical. I've got that all worked out myself." He had — more's the pity.

On one occasion the engineers of the Pennsylvania Railroad, desiring to do their full part in the improvement of Washington, presented plans for a bridge across the Anacostia River. With a feeling of willingness to make sacrifices for the sake of beauty, they put ornamental towers of steel at either end of their structure. Then they found, much to their chagrin, that all the Commission of Fine Arts asked of them was, that they build the simplest possible bridge, as inconspicuous as possible. At the sound of the trumpet the walls of their aesthetic Jericho fell.

Many years ago an engineer had the task of building the Croton Aqueduct to carry the water supply of New York across the Harlem River. He designed that series of stone arches known as High Bridge. It was a delight to the eye. Other bridges, bigger bridges, cheaper bridges, have since been built as neighbors. Yet, such is the enjoyment and satisfaction High Bridge gives that even New York is planning to accommodate the increased traffic while still preserving the beauty of that simple series of arches. So, too, when the great dam near White Plains was finished, the builders used only a

pneumatic tool to fashion one of the most superb pieces of architecture in America. And at the foot of it they planted a garden!

It was my good fortune to hear Ralph Waldo Emerson's last public address, delivered hesitatingly in the Old South Church. He then made one of those generalizations which give the life of prophecy to his philosophy: "Every plant was once a weed; in time every weed will become a plant." The process is going on continuously. The telephone, the automobile, the radio, which began as toys, are now commercial necessities. We fondly supposed that these inventions would save time. Instead, they have increased the strain of life. The theory of evolution to the mind of Disraeli involved only an individual choice between apes and angels. He took the popular side — with the angels. Yet Darwin changed not only conceptions of the universe, but modes of thought as well.

VI

This world of change and multiplicity wants you, provided you can serve it better than any one else can. You may name your own price, but do not make the mistake of fixing the payments in actual money without providing for the depreciation of the currency. Set your price figured in the real, continuing satisfactions of life. Think it over carefully, and see if you do not come to the conclusion that the greatest satisfaction is joy in work. "Count no man happy until he is dead" must be a good proverb, else it would not have lived so many centuries; but I think that man may be accounted happy who can keep busy with the world's work to the very hour of his death.

The slogan of this age is service. The call of today is the city. The city is the problem of today; because here American failure has been conspicuous. Viewed from the standpoint of honest and efficient administration of its own government; from the standpoint of housing or planning; of education, recreation or charities; of traffic or living conditions, all is chaos. The city has overwhelmed the citizen; it has outgrown itself. Its corruption is a menace to the state. The problem it presents drives the despairing individual into his own particular cave. Soon you will be a part of the city. You will become a portion of its machinery. There you will earn your living and spend your free hours. There you will find your rewards, make your success, or go down in failure. In any occupation you may choose you will be confronted by wrongs, injustice, inefficiency, all banded against you, with the organized power of greed. What will you do with your heritage of conflict? That is your problem, and there is no quick or easy solution. It is your responsibility; it is also your opportunity.

This opportunity comes by reason of the fact that almost every city in the land feels the impulse for betterment. In Chicago, where civic spirit is strongest, the deliberate, considered and determined aim is to build on the shores of Lake Michigan the finest commercial city in the world, with a grandeur to fill the eye and amenities conducing to the best conditions of living and working. Other cities, less ambitious perhaps, are embarking on the same quest. Here, then, is the battleground, and here the victories of peace.

Perhaps the greatest problem of all is yourself. The greatest building, the most exacting piece of engineering you will be called on to undertake is that manifold, multiplex structure, your own personality. Here again the task is more difficult and complex for you than it was for your fathers. The break-up of old dogmas, old sanctions and inhibitions, of old chronologies and theories of the origin of the world, old ideas of man's time and place in the universe, old beliefs in supernaturalism — all these changes in the mental attitude of the individual to the world in which he lives — have created a feeling of homelessness. And yet each one of you must perforce knock together for himself some sort of a structure to house his mind, something to protect him from the storms and stresses of human destiny, during the period between the havoc physical science has wrought and the construction of the new home which reason and emotion shall build from those indestructible

elements that are the materials from which life is made.

I know of no better pilot among the shifting sands and shoals of the present day than President Pritchett's talks to college students, published in 1906. These talks were made to a former generation of Technology students by a man who was suddenly brought face to face with the problems of student life.

Perhaps it will simplify matters if we remember that we look not for a philosophy of the universe, but a guide to right living. It is they who do the will that know of the doctrine. The secret of truth is yielded not to research but to obedience.

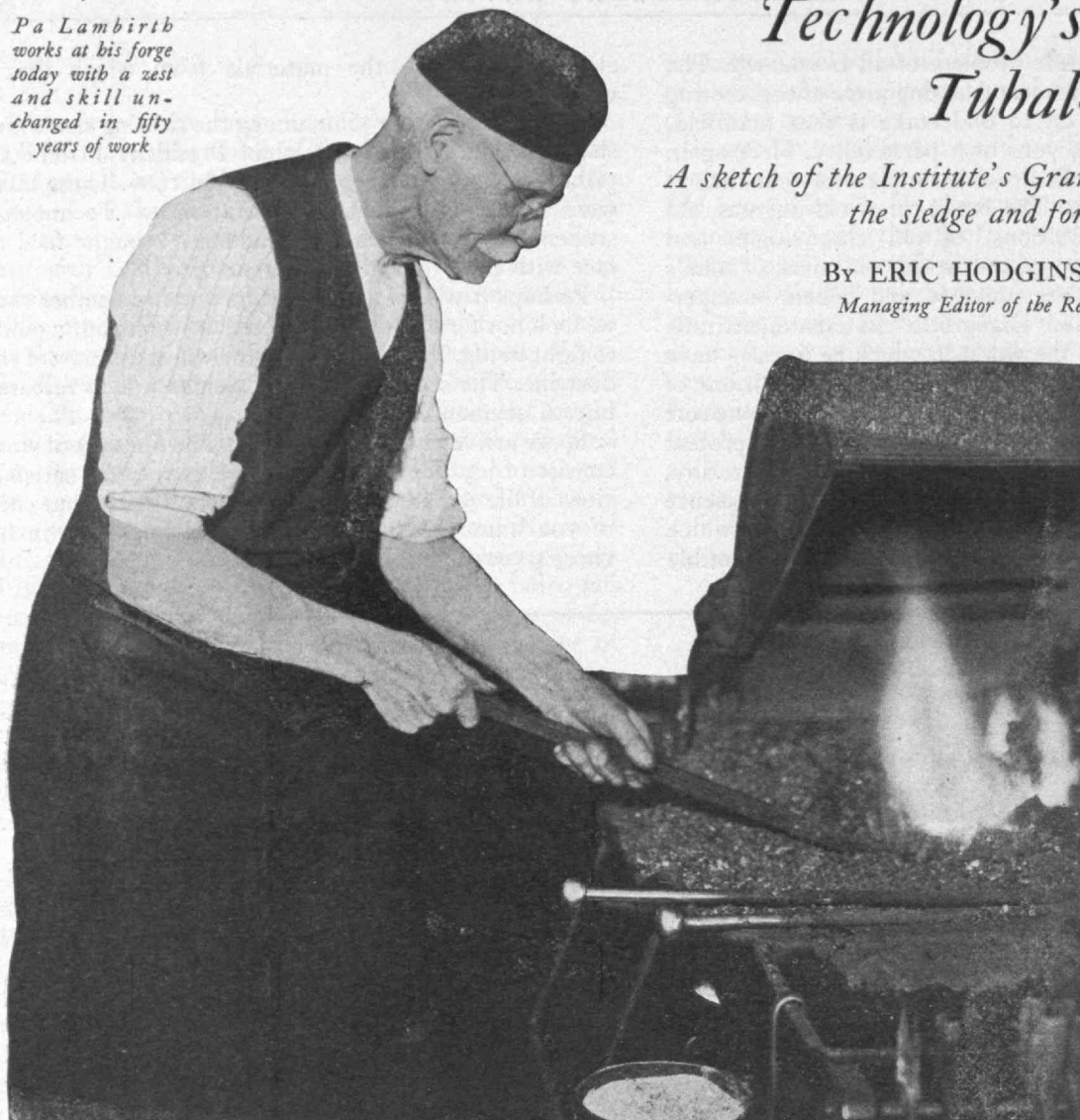
So we arrive at our conclusion. The fine arts of work consist of joy in the work that yields the real satisfactions of life to ourselves and to others. I trust that each of you immortals may come to find happiness in his chosen vocation.



OLD HOUSE AT COMPIÈGNE

From a lithograph by John Richard Rowe, '19, reproduced by courtesy of Pencil Points

*Pa Lambirth
works at his forge
today with a zest
and skill un-
changed in fifty
years of work*



Technology's Tubal-Cain

*A sketch of the Institute's Grand Old Man of
the sledge and forge*

By ERIC HODGINS, '22
Managing Editor of the Review

you as the average, you know, so that you must not feel badly over the fact that Pa has not the faintest trouble in getting up at 6:30 every morning, helping with the breakfast, travelling eight miles to his job in the Institute, instructing three or four sections a day in the art of pounding hot iron in accord with some pre-determined plan, going home again, going to bed when he jolly well

THERE exists a mathematical possibility that you don't know Pa Lambirth. In the latest Register of Former Students there are 255 pages devoted to the names of former students of the Institute, ranged by classes. If your name occurs on or before the nineteenth page of those 255, perhaps you never heard of Pa. For it is not until this page nineteen that the Class of 1886 begins. Pa began at the same time.

James Richard Lambirth is listed in the Institute's catalog as Instructor in Forging, but in the fresh, new leaves of that pamphlet, as it comes year by year, immaculate from the Publications Office, there is no hint whatever of historical fact. Yet it exists, and in considerable measure. If you are a normal human being, and have come to the stage where the second flight of stairs leaves you a bit more breathless than seems natural, where the Ziegfield Follies seem to be getting rather inane and pointless, where the family physician is getting finicky about the number of your cigars, and you seem to find that the youth of the land is conducting itself in a manner that would never have been tolerated twenty years ago . . . the chances are fair that you have reached the mature age at which you have the distinction of being only twenty-five years younger than Pa Lambirth. But we assumed

feels like it, smoking as many cigars a day as he happens to want, being free of illusions that the world was better when he was younger, and in general taking as much zest in life as he did on that June morning in 1861 when his young eyes first looked upon this country's shores. Perhaps William Barton Rogers had the charter for the new Institute of Technology by that time, but it was to be four more years before he had a classroom or a student. Pa was thirteen then. Today he is seventy-eight. For forty-two of those years, the Institute catalog has gone its laconic way to the effect that this James Richard Lambirth is an instructor in forging.

By a conservative estimate, Pa has had tutelage over at least 10,000 amateur blacksmiths, and he is not discouraged. Day in and day out he has taught the young idea how to weld, and he seems strangely calm and unexasperated, for a man who has had to watch the same clumsiness for almost half a century. That may give you a key to Pa. He has seen enough queer things by now to be entirely unruffled by any more. You will not surprise him easily, even when you tell him of a sudden determination to write the story of his life, seventy-eight years of it, in 2,000 words.

One thing above all makes the task easy and pleasant. Pa is not, thank God, a professional octogenarian. He

blacksmith, and no mistake. The railroad moved him to its locomotive shops and put him in charge of a department.

Then came a blow. A new master mechanic was imported from the West, and with him brought his own men. Pa's job was wanted so Pa took down his coat from the nail and walked out of the organization he had served for twenty years. Twenty years is a long time, and beyond doubt in those days, which were the early Eighties, Pa thought much on the injustice of the world. He was thirty-five, and good at his trade—and in the street. Pa could not know that his real career had not yet begun.

But it was not long before the Lambirth fire was bright again, this time in the machine shop of Webb and Watson, on Border Street. It was here that he met one Alex Bowdrey, who by chance was an acquaintance of Peter Schwamb, in those days Assistant Professor of Mechanism and Director of the Workshops at the Institute. And Professor Schwamb, it seemed, wanted a practical man to teach forging in the Garrison Street shops. Obviously it was not long before Dick Lambirth had a call from Professor Schwamb in the machine shop of Webb and Watson. "We want a man to take charge", said the Professor to Dick. "I'd rather come as an assistant", said Dick, a bit overawed by the magnificence of the opportunity.

"We have an assistant. We want to have a man who can take charge."

So Dick Lambirth, having written officially to General Walker and being answered favorably the next day, ("If I hadn't always kept my handwriting up, I wouldn't have got the job", said Pa. "And I was a good speller too.") came to work for the Institute in 1884 and the monotonous record of the Catalog began. "Instructor in Forging". First Pa was under the official jurisdiction of the School of Mechanic Arts, and it was not until 1887 that his full transfer to the Institute rolls took place. But 1886 was his first class, and young Eddie Miller, young Dana Bartlett, were among his first and best students. "I remember how the roll used to go. It was Aborn, Bachelder, Bartlett. . . . Bartlett was third. They used to call him Old Man Bartlett even in those days." Later, of course, there were many others. Park, Fuller, Johnston, Haven, James, he taught them all, and found their talents various. A teacher of

teachers, is Pa Lambirth, Instructor in Forging.

But the best student Pa ever had, the one who stands out in his mind as the best potential forge-worker of his time, was Frank E. Shepard, '87, now Director of the U. S. Mint in Denver. "And his son took after him", said Pa, slightly

wistful that the Fates have not arranged it so that at least one member of this gifted family might follow talent so well demonstrated.

Since, forty-two years ago, Dick Lambirth came to the Institute, full of misgivings at his temerity, and wondering secretly where he would find another job if this proved too much for him, not much has changed about him, one would think, save that now one calls him Pa. One has a right. He has been married almost fifty-six years, and his oldest son is fifty-four. For thirty-four years, this son, graduated from the School of Mechanic Arts in '95, has been an Instructor in Manual Training in the Cleveland High School. They stay put, these Lambirths. The younger son is forty, graduated in '08, and teaches machine work at the Woodward High School in Cincinnati.

Pa Lambirth is a happy man. He sings at his work, when his work will allow it, and over fifty years at the trade has not dulled his enjoyment for it. He is a wizard at twisting the most refractory iron into the most fantastic shapes. To see him, in half an hour, fashion a long graceful, delicate, wrought iron fork out of a shapeless piece of stock is to get a genuine thrill of pleasure at perfection in accomplishment. "I ought to be able to make 'em" says Pa, mildly surprised at your wonder, "I must have made five hundred."

Nor is delicacy the only card in Pa's deck. There used to be a day when not a bolt was used at the Institute that was not

a product of his forge. At this moment, of all the myriads of tongs, shaping hammers, and other tools with which every forge is equipped, there is not a one that was not made by Pa or his assistants. And an eighteen pound sledge that he made thirty-five years ago still leans against his anvil.

Calipers and squares don't mean much to Pa any more. After you've drawn iron and shaped it for almost half a century, you get impatient of things like that.



CRAFTSMANSHIP HERE

You will search long before you find another specimen of wrought iron work finer than the fireside stand here pictured

If Pa wants to make a piece of certain dimensions, he *makes* it and does the job by eye, and puts the calipers on it to check up afterwards. You may think that I am romancing now, but I promise that I have seen Pa announce that he would draw a piece out to five inches and make it three quarters square. And there was at the finish not one dimension that varied a thirty-second of an inch from what it should be.

Before his classes, Pa is something of a dramatist. He knows well enough that a dry recital of first-you-do-this-next-you-do-that, will teach no young engineers to handle iron. So he acts it out for them, whatever the job may be, before a cold forge and a bare anvil. To see his pantomime of the fagot weld is not to need to see Ruth Draper for another two seasons.

Pa has a boast and a hope. Once he had two boasts, but one of them went by the board when he missed a class for the first time in thirty years not so long ago. But the remaining boast will remain as long as Pa. He has never missed a weld. In a half century of blacksmithing, he has never taken two hot irons from the fire, put them together and walloped them but that they *stuck*. As a one-time student of blacksmithing (not, unhappily, under Pa), and as one who can boast that in three months of effort he never made a weld, I think I can appreciate to some slight degree what such a record means. Pa has never missed. It's true that one day in the inexhaustible excitement of explaining the technique to a new class he dropped one of the bars on the floor. It looked as if the record might be shattered then and there, but Pa, being only about seventy at the time, doubled u-shaped over his anvil, stuck the remaining piece against its recalcitrant mate, raised his arm, came down with one vicious swat on the junction, and pasted it together. One blow saved the day. But Pa admits it was a close call.

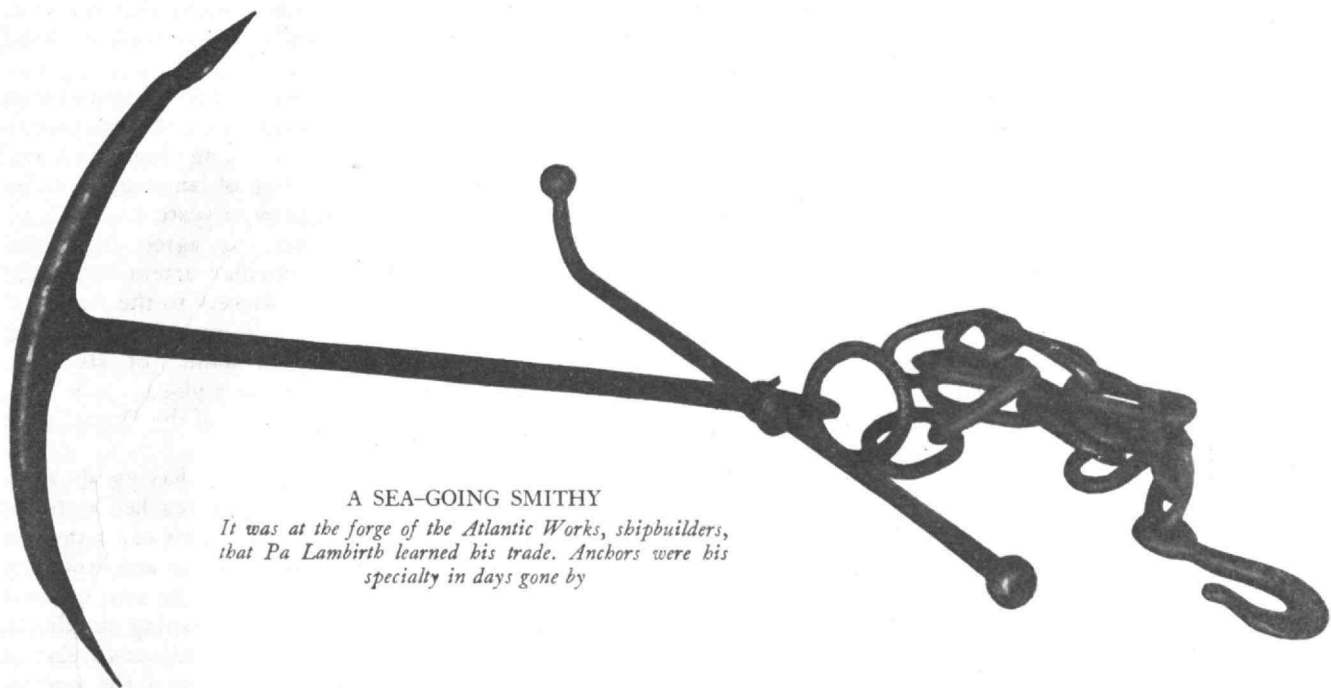
Pa Lambirth's hope is to be able to teach the grandsons. The fathers he has had. The sons he has had. But the grandsons are still to come. Pa figures that if

they come any time within the next ten years, he will still be able to guage to a thirty-second without calipers. After that he thinks it might be wiser to drop the allowable limit of error to one-sixteenth, and you can easily see that he would rather have the grandsons before that time.

To see him on the street you'd think him perhaps the clerk that once he hoped to be. Medium height, spare in figure, wholly without a stoop, neither his build nor his hands give you the faintest inkling of the muscle that still resides in Pa's seventy-eight-year-old wrists and biceps. Nor is his face other than the face of a kindly man of, let us say, sixty-five. White hair, blue eyes, that look steadily through gold-rimmed bifocals, a close-cropped white mustache (for contrast with the 1900's when a picture reveals that it was brown, and in accord with the fashions of the period rambled unchecked among the hedgerows) a sharp line to the jaw and a white row of teeth. The "Village Blacksmith" was a much less attractive personality.

At a conservative estimate Pa has taught 10,000 young men of the Institute between today and that pleasant morning in 1884, when the new Instructor in Forging started his fire for the first time. A stream of youth, passing under his watchful eyes, these forty-two years. Many of his students today he still could call by name if they confronted him. The teacher is always mortal, but there is nothing so eternal as a freshman. If a man is a good teacher he will give his knowledge, his experience and all unknowing receive back some fraction of the unchanging youth of the taught. It is what keeps good teachers young, keeps Pa Lambirth's eye keen, his muscles sturdy.

Iron is a pretty plastic substance, after all. You can do all sorts of things with it if you just know how. Andrew Carnegie did one set of things with iron, and most successfully. Pa Lambirth, teacher of teachers, has done altogether another, and done it just as well. I'm inclined to think I like Pa's set better.



A SEA-GOING SMITHY

It was at the forge of the Atlantic Works, shipbuilders, that Pa Lambirth learned his trade. Anchors were his specialty in days gone by

Visiting Committee Reports: IV. Department of Architecture

Report of the Corporation Visiting Committee on the Department, published by arrangement with the Corporation Executive Committee

HOW the Department of Architecture might best serve its purpose and thereby justify to the uttermost its existence as one of the oldest Departments of the Massachusetts Institute of Technology and the oldest School of Architecture in the country, was the subject of discussion before the meeting of the Visiting and Advisory Committee on November 12, 1925.

The following were present: President Stratton, J. Lawrence Mauran, '89, of Mauran, Russell and Crowell, St. Louis; Arthur W. Rice, '91, of Parker, Thomas and Rice, Boston; Professors William Emerson and Harry W. Gardner, '94, of the Department of Architecture; Henry F. Bigelow, '88, of Bigelow and Wadsworth, Boston; R. D. Kohn, of New York; H. J. Carlson, '92, of Coolidge and Carlson, Boston, acting as Chairman. The points under discussion were further submitted to two Committee-members who had been unable to attend but who expressed their opinions in writing: C. Grant La Farge, '83, and Burt L. Fenner, '93.

After a general outline of the present revised course and its results, discussion was focussed upon the question of where can the Department of Architecture perform its work to the best possible advantage?

The question was analyzed from the point of view of the Institute, the student, and the profession, but necessarily from an academic angle unaffected by financial considerations.

The conclusion, namely, that at this writing "the present location of the Architectural Department in the Rogers Building is ideal" was unanimous. This conclusion was reached after weighing with an open mind the advantages and disadvantages of all the locations considered.

For reasons hereinafter given, the controlling consideration was the central, easily accessible location of Rogers Building. Therefore, if conditions change which make the main Technology group equally "central and easily accessible" (such as a bridge at Dartmouth Street) the present view would be subject to such modification as that change might suggest.

The factors of value as influenced purely by location were: (a) publicity; (b) contact with the profession and the interested public; (c) influence of proximity to the Art Museum collection; (d) influence of student environment on the architectural students by the location in the Technology group; (e) the reverse influence of architectural students on the general student body.

Of all these factors, (b) was deemed the strongest in crystallizing our views. In a central and easily accessible location the busy architect can, and actually does, visit the Department more frequently, lending his aid in criticizing problems, meeting students who later on may be his draftsmen; developing their ideals by contact with his personality, and giving moral support to the instructing staff.

Again, many of our staff give part time service at the Department, and should be as near as possible to the offices where they work for the balance of their time. Old students, now working in offices, are better able to maintain a valuable contact for their own continuing development and for the encouraging assistance of the undergraduate.

The ultimate ideal would be a building of admirable design in a strategic location of easy accessibility wherein could be housed along with all departmental activities, meeting rooms for the Architectural Club, the Boston Society of Architects, possibly an atelier for joint problems, and exhibit rooms to establish the interest of the public in all these activities.

At the present moment the Rogers site most nearly approaches the ideal. In five or ten years perhaps traffic and environment conditions could make these arguments apply with equal force to a location in the Cambridge group.

In considering factor (c) the value to be derived from a new location near the Art Museum was more than offset by the value placed on "central" location, while it was pointed out that experience indicated greater educational value in small loan exhibits from a Museum than from familiar contact with a confusing wealth of exhibits.

Under (d) the contact thus afforded would increase the Technology *esprit de corps*, would broaden the school life, by a more collegiate atmosphere, and must be given due weight in the ultimate decision. And as to its corollary (e) no architect is meek enough to belittle its value.

As to student housing, we understand that the locations considered are all equally well served by local facilities.

In connection with the above it is felt that as far as possible instructors from the main group should come to the Rogers Building instead of sending classes to Cambridge, and that the oral teaching of languages is to be recommended instead of the present system.

Professor Harry W. Gardner, '94, agrees in general with the above but calls particular attention to the three important factors giving success to the Architectural School in the order of their importance: 1. The teaching personnel; 2. The personnel of students; 3. The site where this teaching takes place.

Professor William Emerson, Head of the Department added the following remarks:

"The Department of Architecture, having shown a steady growth for some years past, has reached with this year's enrollment of 225 the elastic limit of its present teaching staff. An increase in the staff to accommodate greater numbers would unquestionably be accompanied by a lowering in the efficiency of our teaching standards, because of the inevitably less well coördinated relation between teacher and student. An increase in the require-

ments for admission would be difficult to adjust to corresponding requirements in other Departments of the Institute. Consequently at a meeting of the staff of the Department it was agreed that the best policy to follow was to raise our own standards within the jurisdiction of the Department so that the number of students able to meet the requirements would represent a higher average of ability than has hitherto been maintained.

"The greatest handicap from which the Department suffers because of its physical separation from the parent body lies in the waste of time and strength required to secure the attendance of classes of from twenty to forty students at lectures in Cambridge. Through the considerate coöperation of Professor Dewey in Course XV, one of his instructors comes to give at the Rogers Building the required lectures in Political Economy to the third year students, thus obviating the necessity for regular students in good standing in that year to waste their time in travel.

"No such arrangement has hitherto been made for the first and second year students, yet it seems that the best interests of the Institute might well be served by arranging such a possibility for the students of these years as well, insuring as it would a fuller quota of their time and energy to do the work that is required of them.

"Realizing that the responsibility of the Department lies not only in giving effective teaching to its students but also in looking ahead to see how it may utilize its position and resources to provide for those needs that are constantly developing in a rapidly growing community, the following suggestions seem pertinent:

"Town Planning is a study the need of which is steadily growing and provision for which is conspicuously lacking. A course leading to a degree in this subject based upon three years of our regular requirements and then specializing in courses in this and other Departments of the Institute directly related to it, would seem an excellent option to introduce.

"Industrial Design, or the application to the design of materials commonly produced in the manufacturing industries, such as carpets, rugs, wall paper, ceramics, and so on, is another field in which the sound principles of design as taught in the Department, when coupled with other related subjects taught in other Departments, might well be applied to the creation of still another option, which will again meet a current need and add materially to the resources of the Department of Architecture."

Burt L. Fenner, '93, shortly before his death, made the following comments on the report as presented to him in writing.

"I fully subscribe to the report. There is, however, in my judgment one reason of very great importance which is touched upon only indirectly and very briefly under the heading (d). At various meetings during the American Institute of Architects' conventions at which the subject of education was under discussion, I recall the frequent references to the fact that in a school of architecture which forms but a comparatively small part of an institution in which engineering courses form a much larger part, the architectural school tends to become submerged and must continually strive to

maintain its identity. If this is true at all, it ought to be more true of Technology than of any other institution I know.

"I feel that the Architectural Department of Technology is now ideally situated in being separated from the great bulk of the Engineering Department and I have the very definite feeling that if the Architectural Department were moved across the river, it would suffer in its *esprit de corps*."

C. Grant La Farge, '83, commented as follows: "I find myself quite positively in accord with the Committee's conclusion. The primary object of the School is obviously to teach its students all that it possibly can, in order to give them the highest attainable equipment for entrance into a most exacting profession. The experience of that profession, in the realm of education, has for a number of years more and more amply demonstrated the paramount need of the closest workable contact between schools and practicing architects; this, in the form of visiting critics, advisers, teachers, and the working of the atelier system, is being constantly more fully recognized and developed. In my judgment, all other considerations, however alluring, are subsidiary to this one. Hence I deem the Committee's vote to have been well taken."

Arthur Wallace Rice, '91, of Parker, Thomas and Rice, wrote as follows: "I think the discussion brought out the fact that if the Institute were located so that it would be more easily accessible to the public, it would undoubtedly be best to have the Department located within the main group of Technology buildings. Whether future transportation facilities or a Dartmouth Street bridge changes this situation within the near future, it is hard to say, and although we disregarded financial considerations, the ability of the Institute to sell its present location and convert it into money which could be used for a new building for the Department, certainly deserves careful consideration. If they do not sell this land, however, and the transportation facilities to Cambridge are not improved, I believe that the Department is better on the Boston side of the river for the following reasons:

"The character of the Department is such that it can be separated from the main group of buildings at a minimum loss to the students.

"If certain of the courses not connected with laboratory work could be given at the Department, one of the serious disadvantages of separation now existing would be removed.

"I believe it is a great advantage to the students to be so located that they can have easy access to the Art Museum and art exhibits in the neighborhood. The public also are more likely to visit exhibitions held in the gallery of the Department and I would advise not only exhibitions of the work of the Department but from time to time interesting art exhibits which would attract the public as well as be of educational value to the students.

"The Department so located would be of easier access to the profession in general and for the use of draftsmen for special work. Draftsmen would be more likely to visit the Department and department exhibitions, thereby increasing their interest in the same."

Undergraduate Affairs

Tech Show

AFTER a season of peregrinations accompanied by cutting, polishing, improving, Tech Show offered its wares to Boston on April 19, 20, 21. That elaborated barn, the Boston Opera House somehow failed to work its dismal disenchantment. The Show made and improved its own environment, and, in a manner hardly equalled since the famous *Patsy*, proved itself not without honor in its own country.

As they have wont to do for some years, the management set aside Monday night for the public, Tuesday night for the students, and Wednesday night for the Alumni. The public attendance was fair, the student attendance excellent, the Alumni attendance better than usual. The student performance preceded the annual Junior Prom: consequently the audience smacked of an opera crowd with their best bibs and tuckers. President Stratton was there; likewise Dean H. P. Talbot, '85.

"Too Many Brothers" is a musical comedy with the usual auxiliaries, specialty acts, regular and pony choruses. The comedy deals with the entangling alliances that occur at a fraternity houseparty when too many sisters appear upon the scene. Outstanding among the cast was Rand B. Jones, '28, as Molly Cluet-Archer, heroine irresistible, pulchritudinous. Richard Whiting, '26, as her brother gave an exceedingly creditable performance, and W. F. McCornack, '26, dispensed high and low comedy as the loquacious and corpulent chaperon. A chorus act that brought applause was a tableau,



GEORGE V. LORD

Above, the profile of the coach for Tech Show 1926, "Too Many Brothers", which passed into history at the Opera House with its last performance on April 21. Below, is the leading lady of the Show; and was there ever a more entrancing picture of feminine loveliness? Unfortunately for the more tender sentiments his name is Bud

RAND B. JONES, '28



Crinoline Days. The song of most evident quality was perhaps "I am Wild about Wilda."

The Tuesday night performance was broadcast by WNAC as were a number of specialty acts the preceeding Saturday night from WBZ.

A week previous the Show journeyed bag and baggage to Smith College and gave an afternoon and evening performance. At the latter standing room was sold; and the management returned home exuberant. A Springfield paper in speaking of the performance summed up the situation when it said "The show of this year is a typical girl and music show, with a plot so tenuous that it is invisible a good part of the time, but it serves to introduce tuneful music, catchy songs, an accomplished ballet and pretty 'girls' in number and charm, voice excepted, that would do credit to any show of the kind."

Circus

"What is a circus without a parade?" queried a member of Circus Committee. "A cropper," retorted the Committee in roisterous repartee. Consequently on Circus Day, April 1, there was a parade despite the slightly inclement weather. And amazingly enough it vindicated the high wisdom of its progenitors, for it was high water mark for the whole day.

Generous Institute officials were evidently of the same opinion as the Committee, for they granted an half hour recess in the middle of the day to afford the student body an opportunity to view the spectacle. In due course a blaring brass band supplemented by vigorous and raucous voices put in its



NOT UPSIDE DOWN

This just happens to be an action photograph of I. R. Waller, '27, Intercollegiate Tumbling Champion for 1925-1926

appearance in Great Court. With inspiration it rendered "Three Cheers for Dear Old Harvard" and "Hail, Hail, the Gang's in Jail" and wended its way enticingly over to the front of Walker Memorial. At that place were assembled the major elements of the parade.

First and foremost was an antediluvian hack within which was ensconced the aforementioned Committee. In Sunday-go-to-meeting clothes were they arrayed — bright checkered vests,

top hats, and Bret Harte countenances. Drawn by a pair of stallions they proceeded with much dignity and bowing.

Following them was the most curious collection of mammals ever seen. The monkeys and the elephants were there, but most of the other animals were freaks or of such distorted nature as to be unrecognizable. All of them had difficulty in progressive locomotion, and many of them were so unsynchronized that their front and rear sections attempted to navigate independently. And in the end all of them proved to be fissiparous, dividing into two live parts without the benefit of covering.

Pathé cameramen were on the scene and ere another week the gay cavalcade was in the provincial movie palaces, including the Boston ones.

The circus proper opened its gates at 7:30 p. m. that evening in the Cambridge Armory on Massachusetts Avenue. Around the huge hall were grouped side shows to the extent of twenty or more. And then there was a western bar of considerable dimensions dispensing pop and cider. The usual collection of sensually masculine lures writhed in and around the crowd before the bar.

The side show drawing the biggest crowd and winning the prize for the best booth was sponsored by Alpha Tau Omega. As a den of iniquity it was staged with gusto and imagination. Next in popularity were the several booths offering throws at favorite Institute instructors. Early in the evening effigies of certain professors were so mutilated as to be quite useless. There was a tintype studio, a peep show, and a miscellany of profusely decorated booths.

Within the ring marvelous feats of strength were exhibited, as well as spectacular pantomimes. A bull fight, the bull being another of the above mentioned fissiparous brutes, was well executed and drew the prize for the

best ring stunt. A balloon ascension and a parachute drop under the auspices of a block and tackle fastened to the roof gave some true circus thrills.

During the entire evening the fire department was busy roaring its way through the crowd. Its engine consisted of a baggage truck with a deafening gong, a bottle of water and a small rubber tube. It proved to be an engine of destruction rather than of safety, for after each gallopade there was work for the hospital corps. The operating room was a scene of great interest where operations were dexterously performed with hack saws, sledge hammers, drills, and similar surgical machinery. Throughout the evening *Voo Doo* conducted a running bulletin in the balcony giving the latest news dispatches in true Rabelaisian manner.

The Circus would seem now to be tradition. It embodies the vigorous abandon of the erstwhile Tech Night without most of its difficulties.

Again, The Filter Paper

A paper done in red ink, brazenly edited and unrestrainedly written, has appeared in Institute corridors for the past several years. Until last year it befittingly styled itself "The Filter Paper." That year it distastefully arrayed itself under the legend "The Mop." Coming down to modern time, *circa* April Fool's Day, 1926, this bold bad paper roared upon the local scene under the heraldic inscription "The Filter Paper-Mop" combining the worst features of both.

It was obvious that some local Munsey had performed a difficult combine creditably, for in this latest scandal sheet is all the rude yawping, all the ribald hullabaloo, and quite as much of a peculiar sort of evangelical spirit as was to be found in its predecessors.

Monstrous headlines proclaimed legal dissolution of the tutoring trust set up by mercenary Institute instructors. The Military Science officers were accused of taking their Institute berth as a social vacation. The Machievelli of the undergraduate body were assailed vindictively with verbal bludgeons and battle axes; and quantities of incidents, risqué, amusing and sensational were related with abandon. Speaking editorially, Burnham MacMop said, "We propose to remove ourselves as far as possible from the tasteless, stereotyped news in *The*



JOSEPH L. LEVIS, '26
Individual Intercollegiate Foils Champion, who has been asked to fence as No. 4 on the All-American team against a British team in Philadelphia, early in May

Tech, the evangelical, missionary spirit of *Voo Doo*, and the neoscientific obscurantism of T. E. N."

Some ingenuous reporter on *The Tech* solicited many, and obtained some, statements from the victims and these appeared in print a day later. That was rubbing it in, one would say.

Junior Week

Junior Week this year was more lively than in the past — social events followed one another in close order. Starting Friday evening, April 16, with the several fraternity dances the week was well under way by the time the Technique Rush was held the following afternoon. Just before the Rush several crew races were held for the benefit of many fair visitors by the men at the Boat House who did not go to Annapolis to open the rowing season against the Navy. Immediately following the Technique Rush the Corporation was host to the members of the Junior Class and their friends at a Tea Dance held in Main Hall of Walker Memorial.

Sunday was used principally as a day of rest in anticipation of the strenuous demands to be made on participants during the remainder of the week. Some of the fraternities held week-end parties in New Hampshire and on Cape Cod.

Early Monday afternoon the week assumed its festive garb once more with an Interclass Track Meet. Following this the Activities held their annual Tea Dance in The North Hall of Walker Memorial, once again proving its popularity as it was well attended. Later in the evening the crowds moved to the Somerset Hotel to listen to the Combined Musical Clubs Spring Concert and later to enjoy the dance that followed till three.

After a morning of rest the festivities were resumed again in the Swiss Room of the Copley Plaza Hotel where a Tea Dance was held by the Inter-fraternity Conference. But a brief respite intervened between the Tea Dance and the Junior Prom which was held at the Copley-Plaza until three.

Insurance Endowment

That the Institute will in all probability be the recipient of a \$100,000 endowment in 1951 is now practically assured for to date the members of the Class of 1926 have subscribed to \$90,000 worth of insurance and the class officers feel confident of carrying this figure still higher before the end of the school year.

This year a revised plan is being used. Instead of each individual taking out a separate policy for \$250 the class has been divided into groups of twenty-five men, all of whom are personally acquainted with one another, under the leadership of a group chairman, who will be insured for \$5000, each member of the group helping to pay the premium on the one policy.

In this way it is hoped to avoid the lapses in premium payments which have bothered the past classes as the chairman will attempt to keep his group 100% from year to year through personal contact. A spirit of rivalry between the groups and coordination within the group is thought to be highly desirable.

Three hundred and sixty members of the Class of 1926 have subscribed to the Insurance Fund so far and it is thought that before the campaign is over this number will be increased to 400. Last year 349 subscribed but of this number 15 per cent have lapsed on their second payments.



Photo by Keystone View

THE CIRCUS CAME TO TOWN

Now firmly entrenched as an annual event the undergraduate Circus was held in the Cambridge Armory, appropriately on April 1. Photograph shows *Tech* Show star, Willard McCornack, '26, as ring master, and Ben Hastings, '29, and John Ellsworth, '29, in appropriate disguises

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A Compilation of recent publications by Alumni and Members of the Staff

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The Bibliography section will next be published in the issue for December, 1926, for which entries will close on October 25. Alumni having publications they wish listed are requested to notify the Review Editors. A postcard will bring the necessary blanks to fill out

News from the Alumni Clubs

Southwestern Association of M. I. T.

THE Southwestern Association of M. I. T. has just subsided after a rather sudden outburst of activity, the occasion for the activity being the long expected visit of Orville B. Denison, '11, Executive Secretary of the Alumni Association. Things began to happen Saturday morning while I was waiting at the station to meet Denison. W. W. Warner, '11, had written me that he wanted to take Dennie down to Nowata, Okla., his home town, over Sunday, but this not being practicable, Warner came to Kansas City, and met me at the station Saturday before Dennie's arrival. The first thing he began to talk about was his great desire to take Dennie to Nowata. Bill Warner and his classmate, Dennie, shared room number 1617 in the K. C. Athletic Club. Dennie said that the way to remember the number was to think of number 16, and that it was an arithmetical progression, leading from 16 to 17. Bill nearly disgraced us later when he tried to get into room 1819.

Saturday noon we got eleven Kansas City Alumni together for an informal luncheon at the Kansas City Club. Page Golsan, '12, President of the Southwestern Association, sat at the head of the table with Dennie as guest of honor. The following were with us: Theodore Polhemus, '11, Bill Warner, '11, G. W. Hall, Jr., '23, C. E. Brown, '25, W. D. Norwood, '23, James C. Irwin, Jr., '18, Hermann C. Henrici, '06, and his guest, Virgil McDaniels, who will go to Technology with the Class of '30, A. S. Keene, '98, H. F. Shutter, '13, H. A. Rapelye, '08, and myself. After lunch we sat around the table and let Dennie tell us something about recent events, which we were all glad to hear. When the crowd broke up Bill and Dennie slipped off together for a game of golf, to meet with us again for dinner at the Bellerive Hotel. Those present included Golsan, Warner, McDaniels, Brown, Keene, Sutter, Hall, and A. T. Cushing, '11, Bernhard Gasser, '22, F. H. Littrell, '23, B. W. Crenshaw, '24, R. L. Falkenberg, '19, J. W. O'Brien, '18, H. F. Hoit, '97, R. J. Scholtz, '22, Alfred Hertz, '08, M. J. Firey, '03, and myself. As we were not all well acquainted early during the course of the dinner each man rose and introduced himself. Virgil McDaniels got a round of applause when Dennie introduced him as of the Class of 1930.

After dinner we all adjourned to the vicinity of a piano, where Dennie entertained us with a few of his many songs, among them "Hard-Hearted Hannah." The program had just started when I was called to the door and told that two young women wanted to see me. On investigating, they proved to be reporters from one of the Kansas City papers, who wanted to hear what Mr. Denison had to say. Being rather timid about asking them in to hear whatever might be coming next, I retired to our room to tell Dennie that two women waited without, and then went in search of advice on the proper procedure. Golsan declined to go with me to ask them in, on the ground that he was a respectable married man. However, at somebody's suggestion Bill Warner rose to the occasion, went with me to tell the ladies that he was Dennie's press agent, and to ask them in to hear the remainder of the program. To the disappointment of every one, they declined to come at this time. A little later, however, when we were ready for a serious talk about the Institute, the reporters joined us and even stayed through the first of the four reels of films which were shown. Every one present was very glad indeed to hear so comprehensive a report as Dennie gave us about conditions at the Institute at the close of the first ten years in the new buildings. The two reels of films on the work of the School of Chemical Engineering Practice, and two reels showing the 1925 All-Technology Reunion, proved very interesting and entertaining to every one.

Sunday must have proved an eventful day for Dennie, for Bill took him in tow and they went to a hunting camp with some friends. Bill reported that his classmate handled the mules very much better than was expected when they got stuck in the mud with their car. That evening Golsan and Henrici entertained our guest, or rather, our guest did the entertaining with some more of his singing.

Monday proved to be a day of more serious work, for we began with a talk before about one hundred and seventy-five students at the

Manual Training High School, where Denison, in his usual capable way, stressed the advantages of a technical education, and the importance of a thorough knowledge of Physics, Chemistry, Mathematics and English. There followed also an outline of the courses at the Institute. Enthusiasm ran high when the thirty minutes was closed with a few Technology songs. After this came a visit with about one hundred and twenty students at Northeast High School; lunch; a talk before quite a group at Junior College; and then a talk and a chance to show the first two reels of films at Westport High School before some one hundred and fifty students from all Kansas City Schools.

Monday evening there was a mixed party of Technology men and their wives at the Orpheum. It was while organizing this that I was talking with James M. White, '14, and learned that Henry Sheppard, '16, from Boston, was in town and wanted to see Dennie. Sheppard proved to be at the first hotel I called, so I left a note there which brought him out to meet us. This proved to be the last gathering before Denison's departure. Those of us who are in Kansas City hope that Dennie feels that his stay here has been of benefit in meeting as many alumni and as many future Technology men as possible.

ELTWEED POMEROY, '23, *Secretary*,
410 Land Bank Bldg., Kansas City, Mo.

Southeastern Technology Association

Dennie's visit to Birmingham necessitated another attempt at convening the many worthy Technologists residing here. He does not realize it, but he was royally welcomed at a luncheon held at the Southern Club, when twenty-five *Mens et Manus* advocates extended him the hand of welcome. Twenty-Four seemed to predominate in numbers, but '88 picturized Youth. Now, let me remark right here, gentlemen, that if Quigley is representative of the Youth-preserving properties of a 'Stute training, an embryonic super-race inhabits the universe, and you can immediately decrease your annual contribution to your old age sinking fund.

Dennie's visit had serious intentions and the up-to-date facts presented us on the 'Stute were absorbed without undue external indications. The future plans are immense and I am sure that all alumni give their Alma Mater enough thought to back her when called upon to do so.

It was with deep regret that we heard of the death of James Calvin Rogers, '11, who was prominently identified with the Birmingham Electric Company.

And now we close, with a cordial invitation to all Industrialists and Capitalists in our midst to investigate the possibilities in Birmingham, The Magic City.

RUSSELL W. AMBACH, '24, *Secretary*,
110 Crescent Ave., Birmingham, Ala.

New Haven County Technology Club

The New Haven County Technology Club held a very interesting meeting on the evening of February 18. The affair was managed by a committee of which R. L. Parsell, '14, was chairman, the other members being Taft, '13, Gaylord, '06, Wellington, '16, Clark, '13, and Morgan.

The following is Roy Parsell's report of the affair, the writer not being present:

"In spite of the heavy snow fall, fifteen loyal Technology men turned out to welcome Frederick H. Newell, '95, and Allan Winter Rowe, '01, at a Technology meeting held in the Dunham Electrical Laboratory, Yale University, on the evening of February 18, 1926. Newell, formerly director of United States Reclamation Service, is a most entertaining speaker and showed many interesting pictures of the development of irrigation and power projects in the West. The work of Technology men entered into many of these projects. After hearing Newell's experiences and seeing his pictures of western

life, one cannot but envy him in his work. Dr. Rowe followed Mr. Newell and spoke about the athletics at the Institute. We all were surprised to learn of the high efficiency of the athletic management at Technology as shown by the expenditure of \$12,000 as against \$700,000 for each of the three largest universities. Dr. Rowe brought the latest news of undergraduate activities in lines other than athletics. It would do many other alumni clubs good to hear Dr. Rowe and to learn of the good work being done by the boys at the Institute. Following the talks there was an informal buffet luncheon."

The New Haven County Technology Club is proud to report the birth of a new co-ed, Dorothy Louisa Norton, born February 18, 1926, to Mrs. Stephen U. Norton (Louisa MacDonald, '13).

FORREST G. PURINTON, '15, *Secretary*,
10 Murray St., Waterbury, Conn.

Washington Society of the M. I. T.

The March speaker-luncheon of the Washington Society of the M. I. T. was held at the University Club at noon on Friday, March 12, 1926. The President, James A. Tobey, '16, of the Institute of Economics presided.

The talk was given by Godfrey Lowell Cabot, '81, on "The Development of International Aviation." Mr. Cabot spoke in a very interesting manner of the uses of the airplane in various fields of commerce and trade. He emphasized the development of the use of the airplane as a means for the transportation of freight and passengers and told of the number of new lines that are being planned for the coming year. He spoke of the use of tetra-chloride of titanium in connection with the airplane for the disinfecting of crops and for laying down smoke screens. Mr. Cabot stated he did not believe the airplane would ever become as popular a method of recreation as the automobile has become, because of the monotony of an airplane trip. It was his belief, however, that the use of the airplane would become very much more general than at the present time and the public in the course of another generation or so would have no hesitancy or fear in traveling through the air.

W. M. CORSE, '99, *Secretary*,
706 Otis Bldg., Washington, D. C.

Inland Empire Association of the M. I. T.

It was our pleasure to welcome Orville B. Denison, Secretary-Treasurer of the Alumni Association, to Spokane on Wednesday, March 10. He spoke before the Associated Engineers that noon and the next day addressed the students at Lewis and Clark, North Central and Gonzaga High Schools.

On the evening of March 10, a dinner of our Inland Empire Association was held at the Davenport Hotel. C. E. Peterson, '25, D. C. Campbell, '98 F. P. Rooney, '96, G. A. Sonneman, '90, W. R. Matthews, '21, H. C. Bender, '09, E. E. Scofield, '19, E. E. Saunders, '20, E. J. Riley, '09, and O. B. Denison, '11, attended. Later H. D. Freyer, '11, of Seattle and Rene d'Urbel, a Gonzaga student who is headed for M. I. T. in the fall, joined the crowd. E. J. Riley, '09, and E. E. Scofield, '19 were elected President and Secretary, respectively, of the Association for the ensuing year.

Dennie disappeared on Thursday and was last seen at a Beta luncheon. We hope to hear that he has been able to finish his trip — thus proving that the Inland Empire alumni are a mighty optimistic bunch.

EDWARD E. SCOFIELD, '19, *Secretary*,
University Club, Spokane, Wash.

Montana Society of the M. I. T.

Dennie arrived in Butte on scheduled time, Friday morning, March 12, and was met by the Secretary and amply fed before proceeding to address a convocation of some twelve hundred students at the Butte High School, this privilege having been obtained through the courtesy of Mr. Ragsdale, principal of that institution.

Friday night he was the guest of honor and principal speaker of the Butte Radio Club, one of the youngest and largest organizations of its kind in the United States. The meeting was held in one of the District Court rooms, in the Silver Bow County Courthouse and was presided over by the undersigned at the request of Judge William E. Carroll, President of the Radio Club. Dennie told club members, many of whom have children desiring to take up a technical education, all about the electrical engineering course at Technology and especially

about the communications and radio options. He also gave details of the Phantom Radio Dinner held in New York on January 19, and was roundly questioned by members on the technical phases of the original rebroadcasting hook-up.

After that came the big doings, in the shape of the viewing of four reels of Technology movies at the People's Theatre and the dinner. The Zizz films were highly enjoyed and we are willing to take off our hats or anything else, except the hair on our heads, to the men who were responsible for the scenario and the performance.

The dinner, in spite of the fact that we strictly obeyed the Volstead catastrophe, was no dry affair. Dennie was the MacGregor and "Where the MacGregor sits, there is the head of the table." We did not intersperse the menu with speeches, using the common phrase, as that in the last analysis is only a mechanical mixture. However, we did mix food with Denison melodies in such exact proportions, that a chemical compound was evolved which *bilaritytized* those members present into a high stage of Denisonation and plenty of pep was in evidence, especially when it came to giving the "We Are Happy."

At the business meeting the undersigned was in the chair, or rather stood up, in the absence of Charles W. Goodale, '75, the Chairman. The Secretary announced that there were now thirty-seven members in the Montana Society of the M. I. T., these being widely scattered over the state, with the largest number in Butte, Great Falls and Anaconda.

It was suggested that in making his itinerary for his next trip (which we hope will be soon) Dennie will plan to go through Great Falls and make his Montana trip include a dinner at that point as well as at Butte.

Mr. Denison conveyed the greeting of Mr. Goodale, who is in Boston, and the Montana Society of the M. I. T. conveyed greeting to Mr. Goodale, thanking him for his interest in Technology affairs and thanking him for donating \$50 to the Athletic Association at M. I. T., in the name of the Montana Society. (A few moments silent devotion to Allan Winter Rowe, '01, who engineered both the deal and Mr. Goodale and saved the balance of our members from digging down.)

A vote of thanks was extended to Mr. William Woolfall, manager of the People's Theatre, for his courtesy in showing the Technology reels. A vote of thanks also was extended to Mr. George A. Packard, '90, of Boston, for so faithfully and efficiently representing the Montana Society of the M. I. T. at the meeting of the Alumni Council and he was super-unanimously reelected to hold down the office.

When it came to the election of local officers, Dr. C. H. Clapp, '05, moved that the present incumbents be retained in office. This was unanimously carried, by Tammany Hall methods, thus putting again into office Charles W. Goodale, '75, Chairman, and ye humble scribe as Secretary-Treasurer. Why the double office I don't know, as we have no local dues, and expenses, like static, are charged to the air and eliminated only through donations from kindly members.

It was decided to create two new offices, a Butte Vice-Chairman and Great Falls ditto. W. L. Creden, '90, Butte, and Albert E. Wiggin, '07, Great Falls, were unanimously elected to these offices. (Some day when one of them is not looking I will slip him the treasurer job.)

The dormitory financing plans were discussed by several embryo financiers and members joined in a general round table discussion of Institute affairs.

Sunday afternoon Dennie was the Harry Lehr of a social gathering at the home of the undersigned and I can safely say that he took the train for Salt Lake and not for Canada.

Those attending the dinner and business meeting in the private dining room of the Thornton Hotel, Butte, on Saturday night were: William L. Creden, '90; George W. Craven, '96, President of the Montana School of Mines; W. A. Kemper, '04; F. C. Jaccard, '07; Carl J. Trauerman, '07; Walter R. Russert, '18; A. F. Robertson, '22; C. E. Harrington, '23; Jesse L. Maury, '25; all of Butte. Also, S. V. Taylor, '23; F. W. Bemis, Jr., '25; Norman Jette, '28, all of Anaconda; C. H. Clapp, '05, President of the University of Montana, of Missoula; and Orville B. Denison, '11, the guest of honor. The other guests were P. J. Brophy, of Butte, father of T. D. Brophy, '16, of New York City, and Dr. G. D. Schallenberger of the University of Montana, of Missoula. Louis A. Stadler, '01, was the only absentee from the Butte ranks, as he was confined to his bed with influenza. He was, however, honored by a visit from Dennie on Sunday afternoon and his health was on the long way to restoration after hearing some of Dennie's songs.

CARL J. TRAUERMAN, '07, *Secretary*,
1800 Phillips Ave., Butte, Mont.

News from the Classes

'74

We are very glad to hear from several of our good men, — Stevens, Mudge, Leatherbee, Knight and Howard, — whose welcome letters come none too often. Stevens writes: "All of my classmates I can recall as to appearance and characteristics, but very few of them have I seen since May 1, 1873, the date of my leaving the Institute. It would be interesting to hear the real story of their lives; the story that seldom, if ever, is really told in words. How many of us are yet in active business I do not know, but all of us are old enough to have earned release from the competitive struggle. Leisure is a dangerous possession, however. It has a kick-back to it, somewhat as has a gun — you need to know how to use it. I am about to risk the experiment, having once before tried it successfully, and on April 3 my wife and I begin our adventures anew by sailing for lands beyond the sea. If I were sending a greeting to my fellow classmates, it would be as from one who was not deceived by the illusions of life, nor by the explanations of those who claim to interpret them; it would be one of kindly sympathy with their failures as well as their successes."

Mudge says: "A little over four years ago I was put on a pension list and started to loaf, enjoy good times on Easy Street, in the woods, on the shore, and elsewhere. This, following thirty-seven years of rail-roading on two of the largest systems running out of Chicago, of the last of which I am a pensioner, credits me with thirty years of continuous service. But, let me quote this text to my classmates as a warning against too great an interest in self: 'Let him that thinketh he standeth take heed lest he fall.' No sooner had I learned thoroughly to enjoy being my own master, as much as it is given to us mortals to be such, when along came one of those whose delight it seems to be to take the joy out of life for others. He was a careless automobile driver, who sent me to the hospital with a compound fracture of a leg. Two major operations and months with casts, splints, and nurses followed, and then were extended over into two years of slow crutch and then cane practice. I am still exercising with the latter, and probably will until the end."

Leatherbee writes: "I have not much to say except that I am well and hearty and leave for the South tomorrow with my wife and daughter for the next month. I still feel vigorous and able to stay in the lumber game for a while longer. On May 4 next I shall be married fifty years, which certainly is quite a record. Will also state that I have lived in the same house, with the exception of the first five years, when I boarded with Mrs. Leatherbee's father and mother, ever since. This is some forty-five years, which is also a record, judging from the way the young people move around nowadays."

Knight, writing from Clairton, Pa., mentions "an occurrence that happened here last February 2, when the Technology boys were here giving a musical play. I was asked to go to Pittsburgh to meet them before the show, where they were having lunch. They were all seated at the tables when I was brought in and introduced as a member of the Class of '74. I heard one fellow say 'Oh, gee, '74' just as though that was so far in the past that it was a wonder there was anyone of that period in existence. We all enjoyed their show and presence, it being the first time anything from the Institute has been presented here."

Howard mentions some personal accomplishments: "In business, I have recently designed and patented a bundle rack for railway cars, that extends the whole length of the car, fifty feet or more, without any braces or brackets to interfere with throwing bags or coats into it anywhere. Neither has it any projections below to interfere with head room. As recreation, I have just calculated the curves, and so on, for a twelve-inch telescope object glass. The first process was to select from eight kinds of Jena optical glass the two which when combined together would give the most perfect color correction. The next was to compute the curvatures of the four surfaces to obtain, first, the minimum secondary spectrum, second, the least difference of spherical aberration for all colors of light, and lastly, a black field. Mr. Lundin, of Alvan Clark and Sons Corporation, Cambridge, now has this objective in the works and expects to complete it by next fall."

Chase has been reelected for the fifth time to the Presidency of the New England Historic Genealogical Society. For two years past he has been preparing a history of his native town of Chester, N. H., which will be issued about May 1. He expects to go to the Pacific Coast in midsummer and then to Atlanta. In May he will take a trip to North Carolina and in June to Louisville.

Nickerson and his wife have recently made a short run to England. Russ and Mrs. Russ are planning a visit to California. Barrus, after a year's stay at the seashore, has returned with his family to Brookline, for many years his home town. He recently served as builders' representative on a Uniflow Engine test at the works of the Onondaga Pottery Company, Syracuse, N. Y. The Secretary is still up to his ears with the details of his numerous activities and duties.

Blunt writes again from Davis Shores, St. Augustine, and with delightful enthusiasm says: "Come in, the water's fine." Speaking in general regarding Florida, he adds: "The so-called boom in its undesirable sense is being eradicated through the elimination of the many wildcat schemes which have naturally sprung up to accompany the normal and real development of the tremendous possibilities of the state. In the years past, Florida has been considered as a nice sandy desert where the rich could spend the winters in bathing, fishing, dancing, spooning, and so on. But now, while Florida will continue to be a winter resort, people are beginning to realize that it also has attractions for year-round residence. Think of it as a state larger than New York, Massachusetts and Rhode Island, combined, with thirty-five million acres of land, twenty-two million of which are tillable, with a sea-water frontage longer than the entire Pacific coast from San Diego to Vancouver, rich in soil capable of raising an abundance of citrus fruits and vegetables, thirty-six hours by rail from New York or Chicago, and then consider the possibility of supplying the entire eastern section of the United States with the early fruits and vegetables so much in demand. Consider also that the railroads, telephone and telegraph companies, steamboat lines, and other public utilities are spending a hundred million dollars to meet the requirements of a growing population, and you cannot doubt that Florida is coming to its own and coming fast. Why should the northern banking interests complain that funds are being withdrawn and sent to Florida? The money is being rapidly sent back to them in payment for the vast supplies necessary in these developments. Millions of dollars are sent north every day by such developments as Miami, Palm Beach, Daytona, Davis Islands at Tampa, Davis Shores at St. Augustine, and many others of lesser but substantial importance."

CHARLES F. READ, *Secretary*,
Old State House, Boston, Mass.

'77

The first two volumes of George Fillmore Swain's "Structural Engineering" have been published during the past year and show the carefulness with which the treatise has been prepared and the general value of the work to the engineer. The press reviews speak most highly of the work which shows the usual careful thought and the painstaking care of the author in all respects.

The Secretary regrets to record the death of G. W. Capen who died on December 30, 1925, after a short illness. He was regular in his attendance to the class reunion every year and will be missed by his classmates for whom he always had a cordial greeting. A fine tribute to his memory has been written by Dr. A. H. Gill ['84] and is given as follows:

"Walter Capen, as we liked to call him, was born in Canton, January 22, 1853, and was the son of George Francis and Susan (Hill) Capen. His early education was received at the district school, and at the Stoughtonham Institute in Sharon, kept by the genial Sanford Waters Billings. Good fitting-schools were scarce in those early days, and this, with private study, barely sufficed to prepare him for the recently founded Institute of Technology, which he entered in 1873.

1877 Continued

"He was the third Canton boy to enter, and the first one to graduate in the Class of 1877. Among his classmates were Professor Swain, the noted civil engineer, long the head of that department at Technology, but now at Harvard; George W. Kittredge, chief engineer of the New York Central lines, and Charles H. Fisher, another Canton boy.

"After ten years employed in the practice of architecture, he spent some time in study in Europe, particularly in France, which he found congenial and profitable. As architect, he designed fine residences in Norwood, Stoughton, Canton, Brookline, Roxbury and western Massachusetts, and maintained a just balance and friendly relations between owners and contractor.

"He was of a social disposition, though caring little for 'society,' as his affiliations show. He was a member of the Canton Historical Society, the old Dramatic Club, the old Young People's Union, the Unitarian Church, Mount Zion Royal Arch Chapter, Hyde Park Council Royal Select Masters, and a past Eminent Commander of Cyprus Commandery of Knights Templars of Hyde Park, which sent sixty-six Knights as pallbearers.

"Few college professors of English literature were better and more widely read than he; those of us who came from the late trains looked for the Capen light as the mariner for Minot's — and with almost an equal certainty of seeing it.

"Finally, he was a man of high ideals, sterling character, or rugged honesty — whose word was as good as his bond — and a polished gentleman. Would that there were more of them!

"During the war he retired, and Canton was fortunate in securing his services as superintendent of its beautiful cemetery: a position into which he wholeheartedly threw himself. No one appreciated the beauties of nature more than he, as his numerous sketches in oil and pastel attest. The position of superintendent required good artistic taste, some knowledge of landscape architecture, business ability, and tact in dealing with the stricken — to all of which he measured up in an unusual degree. The town owes him a deep debt of gratitude for this faithful service."

"He married in 1899 Miss A. Blanche Knowlton, of East Boston, who survives. He died December 30, 1925."

The Secretary regrets to record the death of Arthur Greene Everett, who died on October 5, 1925. He always attended the class reunions when possible and his death will leave a gap in our gradually decreasing number. The following is a memoir of his life:

"Arthur Greene Everett was born in Roxbury, Mass., on August 14, 1855. He was the son of Thomas Blake and Sarah Elizabeth Everett.

"He was educated in the Boston Public Schools and entered the Institute with the Class of '77. He devoted himself to a special course in architecture under Professor Ware. After leaving the Institute he was associated with N. J. Bradlee, architect, for six years. He was associated with H. P. Treadwell for one year. He went to Europe to study for a short time and was associated on his return with McKim, Mead and White. Returning to Boston he entered into partnership with Cabot and Mead. The firm later became Everett and Mead. From 1909 to 1914 he was Building Commissioner for the City of Boston. This position carried considerable responsibility and he devoted most of his time to this work. On account of ill health he resigned this position and went to Europe where he remained for some months. On his return to this country he engaged in a limited amount of practice. His work included the Restoration of the Bulfinch State House, rebuilding of the meeting house at Meeting House Hill, Dorchester, and several office buildings about Boston.

"He was a member of the American Institute of Architects, Boston Society of Architects of which he was secretary for many years, and the Sons of American Revolution. He took an active interest in all matters pertaining to the early history of his country and all patriotic matters. He was a constant attendant at the Class of '77 Reunions and his genial disposition made him a favorite with all his classmates.

"He died on October 6, 1925, after a prolonged illness at his home on Chestnut Avenue. He is survived by his widow, Georgiana Hughes, and his daughter, Emilie Hughes Everett."

C. H. Peabody has recently contributed an article to the Engineering Foundation Research Narrative, No. 94 on Nicholas Leonard Sardi Carnot on Reflection of the Motive Power of Heat. The original article was written about one hundred years ago and Dr. Peabody's article commemorates the fact that this is the centenary year. The article is very interesting and was published in *Engineers and Engineering*, Philadelphia, in September, 1925.

RICHARD A. HALE, Secretary,
Essex Company, Lawrence, Mass.

'82

On account of the severe snowstorm on February 4 the Forty-Fourth anniversary dinner planned for that date was postponed to February 11 and again postponed when the second heavy storm occurred.

Plans are now maturing for a family reunion to be held in June under more favorable conditions.

WALTER B. SNOW, Secretary,
115 Russell Ave., Watertown, Mass.

'84

F. H. Newell has sent in his very welcome story of the year. The family has "moved again for the fourth time to our old home on the hill, the one with the garden and pool." Newell has occupied himself with "all sorts of things, being twice each month at Harrisburg, as engineer member of the Pennsylvania Water and Power Resources Board. During the early part of the year I had the pleasure of serving on the Engineering Board of Review of the Sanitary District of Chicago, whose report, by the way, if you do not have it, is well worth sending for. As President of The Research Service, Inc., I have tried to keep my associates busy on all sorts of jobs having to do with the conservation and use of natural resources, water, fuels, minerals, and so forth."

William J. Rich died at his home in Washington on January 25. Rich was born in June, 1859, in Pembroke, Maine; after a period in the present University of Maine he became assistant to Professor Richards, then Secretary of the Faculty, in June, 1880, becoming a regular student in 1882. He was assistant to Professor Richards until February 1885, after which he became a chemist in steel works, and was in the office of the Lowell Locks and Canals until 1889. He then received an appointment in the U. S. Patent Office, where he was promoted through successive grades, becoming primary examiner in January, 1903, in charge of the Division of Metallurgy and the Allied Arts. He completed a law course in Georgetown University in 1898 and subsequently graduated at George Washington University, after which he became a member of the bar of the District of Columbia Supreme Court and the Court of Appeals.

He was married in Lowell in 1889, and leaves besides his widow, two sons and a daughter; one of the sons is a patent lawyer in Washington, the other is a chemist with the Westinghouse Lamp Company in Bloomfield, N. J. Members of the Class present at the fortieth anniversary dinner will remember the participation of Rich and his wife with particular pleasure.

HARRY W. TYLER, Secretary,
Room 2-261, M. I. T., Cambridge, Mass.

'86

A self-constituted committee made up of all '86-ers who read this is hereby appointed to arrange for an appropriate celebration of our Fortieth Reunion which comes this year. The Secretary is acting as a clearing house for ideas as to date, and manner and place of celebrating. If you have any ideas send them in; if you haven't, get busy and fabricate a few.

Any '86 men of the S. M. A. looking for a seat on their reunion band-wagon should get a move on or they will have to go on the trailer. Ball is at the steering wheel. Benson, Goddard and Sutherland are taking turns at the horn.

ARTHUR G. ROBBINS, Secretary,
Room 1-270, M. I. T., Cambridge, Mass.

'87

Ames Carter sails for Italy and France on the *Patria* on March 31, and will return on the *Leviathan* about July 1. A year ago in Cairo he saw Goldthwait, who was still dancing and as handsome as ever.

Maurice Cooley has been developing a high grade of asphalt in Cuba, and has worked out the problem of getting it from the ground and transporting it to the Eastern States at a price that enables concerns using large amounts of asphalt to use this high grade in place of the lower grade they have been obliged to use in the past. He has successfully installed a Diesel oil engine several miles from the coast.

Burgess was in Paris learning to paint pictures when last heard from. It is about time he produced some colored Goops or Purple Cows. A recent issue of the Williams *Purple Cow* acknowledges its indebtedness to Burgess for having introduced the breed of purple cows which is flourishing in the "green fields and pastures new" of Williamstown.

1887 Continued

William Powell of the architectural course is living at Cambridge, Md.

George Draper reports that the Hopedale Manufacturing Company sold more than thirty-six hundred Nordray looms during 1925. The company has a new Nordray Dobby which has the merits of extra strength and longer wear. From statistics given in *Textrin Themes*, irregularly issued by the Hopedale Manufacturing Company and edited by George Otis Draper, it appears that 450,000 automatic looms will be sold during the next ten years. George has been taking trips into the great world recently. He reports that in New York he saw kittenish women of forty touching cigarettes to toy balloons, and that young ladies are attending evening functions without hose, thus causing a further prostration of the market for dress goods.

GILES TAINTOR, *Associate Secretary*,
53 State St., Boston, Mass.

'88 Stone and Webster are erecting a new building for their own occupancy at the corner of Water and Kilby Streets, Boston.

William H. Blood, Jr., underwent a serious operation recently, but was making rapid recovery at the Corey Hill Hospital, Brookline, when these notes were written.

Sawyer took a pleasant winter trip to the West Indies and the Canal.—Snow spent a pleasant two weeks in Bermuda.

WILLIAM G. SNOW, *Secretary*,
112 Water St., Boston, Mass.

'92 Here are some by-products of the last bulletin sent out. Gray writes from Richmond, "Your information is very interesting, although lately quite sad. I have looked at this old age business from every angle and believe me there is nothing to it."—Hartley Dennet from East Alstead, N. H., writes, "Since you have managed the little bark of your life nearly three score years serenely in turbulent seas on the water and sand idea, I feel sure you will instantly see in this little drop or little grain I am enclosing, the making of whole worlds. I think I have not seen any of the fellows since 1892 except Bigelow with whom I met on a Plymouth excursion of the big Technology blowout several years ago, and Tucker, whom I have not seen since 1897."—William W. Locke from Framingham, says, "I was flat on my back with the grippe when Metcalf passed away and did not learn about it until ten days later. It seems dreadful that so able and useful a man should be cut off in his prime. He was indeed a leader of whom we all could feel proud."—From Edward N. Stone of Brooklyn, "I shall have completed thirty years' service with my company this April. I feel that my work at the Institute has been of great benefit to me. Let us not talk of the sere and yellow leaf but make the most of blessings coming to us."

Pollard also sends his greetings to all and sundry. — And last of all I received a letter acknowledging the bulletin from the firm of which he was President telling me that Charles B. Grimes had died on January 18 this year. They later sent me the following clipping from a New Rochelle, N. Y., paper: "The sudden death of Charles B. Grimes, President of the export firm of Pomeroy and Fisher of New York City, and a resident of this city for more than twenty years, which occurred at the Grand Central emergency hospital, comes as a great shock to the business world and the residents of New Rochelle. Too much cannot be said of Mr. Grimes' sterling qualities and his interest in public matters. He was active during the war in the city and was treasurer of one of the loan drives. He was a great reader, enjoyed travel and was usually in good health. He was an active churchman and prominently identified with the ecclesiastical drives, particularly with that of the Cathedral of St. John The Divine. Mr. Grimes was fifty-four years of age and the son of Thomas B. and Mary Grimes of Hubbardston. Besides his parents, he is survived by his wife and twin daughters, Mrs. Sybil Bishop and Mrs. John L. Taylor."

Mrs. Mary Lovering Holman with her daughter, Winifred Lovering Holman, Boston University, '22, is sailing in April for Europe for a stay of several months. Both Mrs. and Miss Holman are genealogists by profession. Mrs. Holman's latest book, a *Clement Genealogy*, compiled for Percival Wood Clement of Rutland, Vt., is now in press. Miss Holman's first book, a *Burton Genealogy*, compiled for George W. Burton of Lacrosse, Wis., will appear in the early fall.

Joshua Atwood, who has long been in the Public Works Department of the City of Boston, has just been chosen highway engineer of the City.—Edmund Sylvester has found out how to end a dispute over

the question of whether a town shall build a high school or not. His solution is to offer to give \$50,000 for it if the town will vote to build it. This did the trick and also broke up the town meeting for ten minutes while the citizens cheered. This was at Hanover, Mass., his home town.

JOHN W. HALL, *Secretary*,
8 Hillside St., Roxbury, Mass.

'94 No notes have been received by The Review Editors from the Secretaries of this Class for inclusion in the May issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review office. Members of the Class having news or inquiries should address them to Samuel C. Prescott, Secretary, at Room 10-405, M. I. T., Cambridge, Mass.

'95 Well, Mates, we are ready to broadcast the results of our annual informal get-together dinner, held at Walker Memorial on Tuesday, March 16, 1926, at 6:30 P.M. It was a great evening! Fifteen faithfuls duly promised to attend, but only ten such mustered courage for the event. Those present were Booth, Bourne, Brackett, Chase, Gus Clapp, Hannah, Humphreys, Walter Williams, Whorf and Yoder. We expected Barrows, Brown, Miller, W. D. Parker and Winkley, but for some reason they did not function with their calendars.

After swapping pleasant reminiscences and listening to some of the best yarns ever told, we were treated to a most excellent menu, such as can only be had through the supervision of Mr. Bridges of the Walker Memorial Dining Service. Over our coffee and cigars we settled most of the perplexing problems of the day, and then adjourned to the bowling alleys to demonstrate our prowess in this strenuous and healthful exercise.

It was difficult to choose sides, as the handicap records were not available, so everyone qualified as an expert, which helped matters greatly. The scores, however, demonstrated the astuteness of the selections made by Captains Chase and Williams. Chase handled the Rights and Williams the Lefts. The average score of the evening for the Rights was 72.3, and that of the Lefts 67.8. The highest individual game score was 90 by Chase, and the lowest 39 by Hannah. Yoder made the only two strikes of the evening with average score of 86. Brackett is picking up slowly and Humphreys has promise; Bourne surprised us, but Hannah, well, he will do better some day!

Every one thoroughly enjoyed the evening and voted unanimously to repeat the engagement before the hot weather sets in. Mates, don't miss the next gathering.

It is officially announced that the next Annual Outing of the Class of 1895 will be held at Riversea Club at Saybrook, Conn., where the Class has enjoyably sojourned on several previous occasions. The date for this gathering of the Clan will be June 11, 12 and 13, and further notice in detail will be mailed shortly.

We received a very interesting letter from William H. Lambirth, who is Head of the Industrial, Domestic and Applied Arts Department of Central High School, Cleveland, Ohio. You remember Bill is the son of dear old Dad, who is still on the Instructing Staff of the Institute.

We heard from S. P. Hurst, at Reading, Pa., who is deeply engrossed in the design and installation of power units in the South, using powdered coal as fuel. He is affiliated with The U. S. Barstow Management Association, Inc.—A line from Arthur Dean from The National Arts Club, New York City, has brought to life reminiscences of our freshman year. Arthur admits he has been somewhat neglectful of the Class, but promises to do better in the future. New Yorkers, stir him up!

You remember Dickerman? Well, the Secretary located him in Harrisburg, Pa., as engineer with the Public Service Commission. Dick never professed to be a politician, but we find him closely affiliated with Pinchot's right-hand men. He has a growing family, three members of which are now at college. As to a hobby, he is classified as expert statistician on the cost of operating a Franklin run-about. Write him and he will give you the dope.

Tommy Lothrop has been heard from in Chicago. He is manager of the Angle Steel Stool Company of Illinois. A young Lothrop is being groomed for Technology or Harvard; let's hope it is for Technology. Tom reports he had a fine cruise last summer with George Cutter.

It is sincerely hoped that all who can possibly attend our outing

1895 Continued

in June will do so. Each year our numbers grow less. Let us brighten each other's path and wipe away the cobwebs of the approaching years, thus helping each other to grow older gracefully.

LUTHER K. YODER, *Secretary*,
Chandler Machine Company, Ayer, Mass.

'96

Through the kindness of B. J. Fletcher, the local Secretary of the Atlanta Association of M. I. T., the following additional facts have been obtained regarding Robert C. Clarke, whose death was reported in the last issue of *The Review* as having occurred on September 14, 1925. He was born in Atlanta, Ga., on June 14, 1874, the son of Thomas Moore and Joan Thompson Clarke. He was educated at the Moreland Park Military Academy in Atlanta and the Georgia School of Technology before coming to the Institute. He was a member of the Tau Chapter of the Delta Psi fraternity at Technology. His occupation in Georgia had been real estate. He was a member of the Capital City Club, the Piedmont Driving Club, and the Atlanta Athletic Club, and had served several terms as director of the Capital City Club. In the world war he saw service as First Lieutenant in the 81st Division overseas and with the Army of Occupation. He traveled extensively and recently completed a trip around the world. At the time of his death he had passage for an extensive tour of South America and of Africa. The funeral services were held at the residence of his brother, Logan Clarke, on September 16 and interment was in the Oakland Cemetery. In addition to his real estate business he served as police commissioner from the eighth ward of Atlanta for several years. He is survived by three sisters, Mrs. S. Julian Ravenal, New York City, and Mrs. Harvey Johnson and Mrs. Lowry Arnold of Atlanta, and four brothers, John L., Arthur, Burton and Logan, all of Atlanta. As evidence of his loyalty to the Institute his will contains an item bequeathing \$1,000 to his fraternity at Technology.

The Secretary has received no response to his broadcast for information regarding the present whereabouts of Justin W. Campbell, who has become lost. He was last known to be in Cleveland, but an appeal to George Merryweather there for assistance has so far yielded no reply.

Classmates will be sorry to learn that W. L. Root suffered a severe loss early in March by the burning of his house in Pittsfield while he was on a trip to New York. Many valuable antiques and personal possessions were destroyed as the fire practically gutted the house. — Another classmate who has received some publicity in the press is John F. Brooks, who has practically ever since graduation been operating a store at North Hanover, Mass. His unique methods of operation have gained him considerable publicity which was featured in the Boston Sunday *Herald*.

O. B. Denison, the Secretary of the Alumni Association, in his recent trip around the country, reported that he ran across a few '96 men. In New Orleans he saw quite a bit of Charlie Johnson, who is in the office of J. L. Porter, '00, the local President of the Technology Club of the South. Dennie did not see C. H. Hurd, who is at Crowley, La., and who did not attend the New Orleans dinner. In Houston, Texas, he met a genuine welcome from J. M. Howe, who reported that he has a boy graduating from the University of Michigan this coming June and plans to go to Ann Arbor with Mrs. Howe for the commencement exercises. If the dates do not conflict he will include our thirtieth anniversary celebration at Osterville in his itinerary. In Los Angeles he had the good luck to run across Fred Ashley, who has already reported that he hopes to attend the Reunion, but he failed to meet the other Los Angeles '96 man, W. J. Batchelder, who was out of town at the time of his visit.

On March 1 Paul Litchfield undertook to see the Secretary at Technology when he had a few minutes before going to the depot to catch his train back West, but, unfortunately, the Secretary was out of his office and did not have an opportunity to get Paul's personal greeting.

Another caller was Arthur Baldwin, on March 19, who came with his son and spent the day. The boy is at present in his second year at Williams College, but plans to change over to Technology next fall and the visit was for the purpose of discussing the arrangements for the change. The Secretary was thus able to see a lot of Arthur and have him to lunch and finally to take him for a call on Johnnie Rockwell and deposit him at the home of Gurney Callen where he was left in good hands. An effort to get an item of news out of Callen met with no success as he said that he was so busy working about fourteen hours a day teaching at the Harvard Business School that he did not see much of his classmates.

Al Drum reports that an additional incentive for him to come to Boston in June, besides the class reunion, is the graduation of his son John from Technology in Electrical Engineering at that time.

Harry Rawson sailed early in February for a trip to Europe and will not return until the last of May. He is missing the Reunion with much regret, but does not feel that he could well stay around the East until the middle of June for it and would not be warranted in making a trip back East from Iowa so shortly after his return from Europe. There does not seem to be anything else for him to do but to hotfoot it directly from Europe to Iowa and get busy on the work which is bound to accumulate during his absence. Mrs. Rawson is with him in Europe, while their daughter is in school at Vassar and their boy is studying in New York.

Hultman has had a slow recovery from his serious illness of a year ago and the added work involved this past winter due to the coal situation in New England, resulting from the anthracite strike, necessitated a vacation trip for him to Florida during the month of March. Cards received from him indicate that he and Mrs. Hultman are having a good time visiting various Florida resorts.

The issue of *The Tech* of March 5 contained an article by Billy Mason on the stage and urged that Technology should have an ambitious dramatic club, aided but not controlled by the English Department, and cooperating with the Tech Show. Classmates will recall that after a short experience in banking, Mason went on the stage and has followed that work ever since, primarily as an actor on the legitimate stage. He has had wide experience in vaudeville and as a coach of plays and musical shows. He is now on the staff of the Repertory Theatre in Boston, in the company of Jewett players and specializes in character parts.

The latest word from Jacobs on his tour of a year was that he and his family were sailing from Honolulu the latter part of March and would pick up their automobile in Los Angeles and journey back by easy stages across the southern part of the country so as to arrive home in Vermont about the middle of the summer. He is very sorry that he is going to miss the Reunion. Since December 27, when they arrived in Honolulu, they have been living in a delightful little bungalow near Waikiki Beach and have been enjoying themselves thoroughly. Every moment has been most delightful and sports of many kinds including swimming, surf boarding and outrigger canoeing have been indulged in. He says that this is just the thing that Wayne and M. L. Fuller ought to do for their figures. One interesting episode for him was a twelve-hour tour of duty, including a three-hour dive in a submarine. All of the tourists of the world come to Honolulu. One recent visitor was the famous General Lord Allenby of Palestine, who was given a great ovation. Jacobs has done quite a bit of study of astronomy, viewing the stars which are not visible in the latitude of Vermont. Apparently the only '96 man on the island is R. G. B. Sheridan, who had not been met by Jacobs up to the time of his writing, but whom he expected to see shortly. He and his family made a two weeks' visit to Kilauea Volcano and there met Dr. Jagger, formerly of Technology, who is in charge of the volcanic observatory. Since its explosive eruption of 1924 this volcano has been dormant. They stayed at the military rest camp on the rim of the volcano at an elevation of 3600 feet. Jacobs also made a three-day expedition with horses and a Japanese guide to the summit of Haleakala, 10,000 feet above sea level, which is the largest extinct crater in the world, being twenty-seven miles in circumference and having no less than fourteen cinder cones, the largest 900 feet above the crater floor. The only mining in the Hawaiian Islands is for water. Sugar manufacture he found very interesting. In fact, he is most enthusiastic over the whole trip and says that anyone who wishes a real rest with an opportunity to see the country at a reasonable cost can do it no better than by making a tour similar to that which he is making.

In order that classmates may be informed regarding the attendance at the Reunion the following list is given covering the replies to date. It will be noted that there are a lot of men still to be heard from. Undoubtedly the greater portion of these are not planning to come, but the Secretary feels sure that some of them will be on hand. The suggestion is that each classmate look down over this list and then if he finds that the name does not appear there of one or more men whom he would like to see present or whom he expects will be present, he should immediately get in touch with these fellows, urge them to be present, and secure a definite reply from them.

The men who hope to attend are: Mark Allen, Billy Anderson, Fred Ashley, Arthur Baldwin, Harry Baldwin, Dan Bates, Dave Beaman, Skip Brackett, Harry Brown, George Burgess, Lewis

1896 Continued

Cannon, Billy Clifford, Bob Davis, W. T. Dorrance, Jim Driscoll, Joe Driscoll, Al Drum, Harry Dyer, R. O. Elliott, Harry Fisk, M. L. Fuller, Steve Gage, Harry Grush, Joe Harrington, H. R. Hedge, W. R. Hedge, Frank Hersey, George Hewins, Gene Hultman, Sam Hunt, Ben Hurd, H. K. Jones, Charlie Lawrence, Gene Laws, Marshall Leighton, Walter Leland, C. E. Locke, Andy MacLachlan, Eddie Mansfield, Jim Melliush, Charlie Moat, Lou Morse, Myron Pierce, Johnny Rockwell, W. L. Root, LeBaron Russell, N. F. Rutherford, W. L. Sjostrom, Jim Smyser, Bert Spahr, Walter Stearns, Meyer Sturm, John Tilley, Harry Tozier, Lucius Tyler, Perl Underhill, Sam Wise, J. E. Woodwell and Con Young.

Russell Porter would come if the Reunion were held in Vermont, but feels that it is a long trip from Vermont to Osterville.

When Baldwin was in Boston he reported that as President of the First Unitarian Society of Schenectady he was to deliver an address on April 9 at the commemorative services on the occasion of the Society's twenty-fifth anniversary. He has been laboring with Dr. Coolidge to secure the latter's attendance at our Reunion, but Coolidge fears that he may have to be testifying at that time to the validity of some of his inventions in a court of law. Baldwin's final argument with Coolidge was that he planned to be a passenger in the Coolidge's automobile from Schenectady to Osterville and, therefore, it was up to Coolidge to act as a driver.

Stearns, as assistant manager of the Central Station Department of the General Electric Company, has for one of his jobs the initiation of commercial exploitation of products originated by the company and having applications outside of the normal sphere of the company's operations. Many such are developed in the course of research on purely electrical application. Stearns and Baldwin were '96 men on one of the several local committees that looked after the interests of the Tech Show for its recent performance in Schenectady, and both men entertained members of the cast at their homes for the night following the performance. The net proceeds accruing to the Show from its Schenectady presentation were nearly \$1,000.

CHARLES E. LOCKE, *Secretary*,
Room 8-109, M. I. T., Cambridge, Mass.

JOHN A. ROCKWELL, *Assistant Secretary*,
24 Garden St., Cambridge, Mass.

'98 David LaForest Wing, IX, was a worthy son of Technology and an illustrious member of the Class of '98. His sudden death is a sad loss to us and to the country. The following notice is taken from the *Washington Star* of February 17, 1926:

"David L. Wing, an economist engaged in Government work for many years, an expert of wide reputation in the coal industry, and prominently known in Washington, died last night at his residence, 1322 19th Street, N. W. He had been apparently in good health until a few days ago, when he contracted influenza which developed into pneumonia and his death came as a great shock to his family and friends.

"Mr. Wing was born in Valparaiso, Chile, December 20, 1874. He graduated from the Massachusetts Institute of Technology in the Class of 1898 and from 1903 to 1905 did graduate work in economics and political science at Columbia University. He first engaged in the lumber business and also worked with the Census Bureau for a short while. He later became a special agent with the Bureau of Corporations and from 1915 to 1920 was a special examiner in the Federal Trade Commission. . . . During the World War Mr. Wing held a position of great responsibility, being in charge of all the coal work for the commission. Since his resignation therefrom in 1920 he engaged in private practice as a consulting economist, but was frequently called upon for special services to the Government on account of his exceptional knowledge of the coal industry. . . .

"Less than two months ago he was appointed by President Coolidge as secretary of the Advisory Board of Federal Industrial Institutions for Women.

"Mr. Wing is survived by his wife who was Miss Lucy Madeira, head of the school for girls of that name here; Wilson and Mary Wing, and by his father, Wilson Wing of Bangor, Maine."

Donald N. Alexander studied with us to be an architect, but after graduating he felt the call to enter the ministry. We note with pleasure the following taken from the *Worcester (Mass.) Telegram* of February 4, 1926: "One of the most active and well organized of the smaller churches in the city is St. John's Episcopal Church. . . . Under the able direction of the present rector, Reverend Donald N. Alexander, who has held his post since 1918, the church has enjoyed a period of

spiritual and economic prosperity combined with an almost family-like unity of all branches of the parish life. . . . The present rector received a degree of Bachelor of Science at the Massachusetts Institute of Technology in Cambridge, but decided to enter the Christian ministry. He was admitted to the Cambridge Episcopal School of Theology, graduating in 1904. Reverend Mr. Alexander was with St. Mark's Church in Leominster before coming here."

Accompanying this notice in the paper is a picture of the church and one of the rector. The latter we easily recognize as the same Alexander whom we knew in 1894-1898, although he has grown in dignity.

ARTHUR A. BLANCHARD, *Secretary*,
Room 4-160, M. I. T., Cambridge, Mass.

'00 Yes, the last issue was a flat tire as far as 1900 was concerned. Russell was housed with a heavy cold when the time for copy came and it seemed very easy just to let things slide. Now it is time for another batch of copy and lo — the editorial larder is empty — hardly a bone.

For the benefit of those who were not there, we want to say that the Class was well represented at the big New York dinner last January. Elbert Allen went down from Boston and found some of the faithful there. They were Atwood, Chalmers, Hapgood, Hughes, Knight, Thayer and Price. The latter had a happy thought come to him just before the dinner and as a result Mrs. Price graced the occasion. She is now a dyed-in-the-wool 1900 fan, having attended every function of last summer's reunion and become inoculated with the class bug. Allen reports a very enjoyable affair. Several of the men wanted to know if another reunion couldn't be pulled off on the Cape again this summer. To the Secretary, it doesn't seem wise to attempt a regular reunion each year. Of course, we had such a good time it is natural to wish for another one. That much is perfectly logical. On the other hand, another reunion like the one in 1925 would not be so successful unless the same amount of work and thought was put into it by the committee, and the same coming-together of men from a distance could be brought about. There is good reason to believe a real reunion every five years can be made a successful affair. Between times, wouldn't it be wiser to make any gatherings at the Cape, or elsewhere, of a very informal nature? The Secretary, or the last reunion committee, could easily arrange a time and place for meeting, but make no prearrangement for entertainment. A circular letter could be mailed to the Class announcing the event, but no second follow-up letter sent, save to those writing for reservations. If any of you men wish to attempt such a thing, we wish you would write in about it and we will get busy.

Wolcott Remington writes he is taking a western trip with California as his goal. It is a sort of sabbatical year with him, for he has worked for the last thirty years (more or less) without having taken time off to even see the sights of his own city of Lynn. Friend Doc says go now and work afterwards. We know every fellow will wish him good speed and a quick return to health and strength.

GEORGE E. RUSSELL, *Secretary*,
Room 1-272, M. I. T., Cambridge, Mass.

'01 Graduation from college is an important event in the life of every one, whether the severance be brought about through the completion of the requirements of the Institution or by the act of an omnipotent though not omniscient faculty. Orthodoxy demands the acquirement of the degree and in the main there is probably some wisdom in this convention. Still, any impartial observer glancing through a list of non-graduates and noting the services which they are rendering to the community after a reasonable lapse of years may find some ground for doubt in the absolute authority of this conventional belief. On the eve of one's Twenty-Fifth Anniversary one is peculiarly disposed to make such a survey and to evaluate in terms of one's own maturity the progress and degree of success of the individual. In doing this one must recognize that there are various criteria for this debatable word "success" and that perhaps no two individuals in a group accord rigidly eye to eye on a series of standards. To one, material prosperity is the dominant factor; to another, a distinction recognized by one's fellows in some field of human endeavor; to a third a lasting service to mankind. One could lengthen the tale indefinitely. The sum total, however, of all these diversities can be resolved into the one thought of preëminence, whatever be the field of endeavor or the units in which accomplishment in it is measured. Judged by these standards, the Class of 1901 numbers a goodly group of "successful men" and these

1901 Continued

are drawn indiscriminately from those winning the Technology degree and those for reasons not pertinent to our text lacking this initial distinction. Further, no one, but for reference to an official text, could tell whether A, B or C had graduated or belonged to the glorious company of the non-elect. The one fact that does stand out and that is carried through the years is common membership in one class of a great and ever more powerful institution. We are all enlisted today under the banner of Technology, and as loyal sons of that institution the work of each one of us in the world adds to the tale of service, of influence, and of benefit which that institution has given, is giving, and will always give, so we believe, to the world.

The Twenty-Fifth Anniversary means at least a doubling of the age at which one left the Institute. Productive, creative years. In their earlier number, formative. Years of maturity, of the definition of faiths, of the clearer vision of the goals sought and of the possibilities of their accomplishment.

Now every man has his own personal life with which the world has no concern. Less complex in his mental reactions than those of the complementary sex — the married members of the Class will be better able and less willing to express an opinion on this point — he none the less is two persons, the one which only he himself knows, the other, the man as his public knows him. With the Twenty-Fifth Reunion of our particular Class approaching its time of accomplishment, it will be particularly interesting for those who attend to meet their classmates of a quarter of a century ago, and in not a few instances see for the first time the changes that the years have wrought. Physically we are all twenty-five years older, and with some, at least, the graceful, fluent curves of youth will have become the more pronounced rotundities of maturity. Hirsute embellishments will have taken a new form, as at the time of graduation the majority of the Class were unadorned save by nature's provision against sundry inclemencies. But the outward changes, while they may be more patent, are far less significant than those of the inner man (the usual gastronomic connotation is here denied). Some of the Class in their present vocations follow a straight and logical path, from the indications of their student days. Others have developed a radius of gyration, simple or complex in its mathematical expression and unrelated to physiological habitudes, and from their promise of struggling engineers have emerged as financiers, lawyers, artists, or what you will. It is interesting to speculate how far these later developments rested upon immaturity of choice or pressure of circumstances, and how far they have been conditioned by growing self-knowledge gained in the school of experience.

To those of the Class who have toiled painfully thus far through this quasi-speculative discourse, the question will not unnaturally arise as to the cause — excuse, if you like — of this particular thesis. The question is a fair one and deserves a candid answer. Largely as a result of the correspondence incident to the Reunion your Secretary has reestablished contact with members of the Class who have not seemingly touched the Technology scheme of things since their departure. Many of the letters have been informative, personal things, giving more than a hint of the man who dictated them. Through a variety of activities as an undergraduate, it was your Secretary's privilege, as viewed through the mellowed haze of these later years, to have contact with every man in the Class. I can conceive of no greater opportunity than a four years' tenure of service as Class Treasurer, such as was mine. Other activities brought contacts, perhaps, but they lacked the intimate, personal touch — not a slip into the vernacular — which was inherent in that particular job. And so it has been my privilege in these last few months to reconstruct the impressions of the men I once knew in terms of these recent letters. It has been a pleasant experience, not conducing to mawkishness or sentimentality, but bringing the keen satisfaction that must come from the knowledge that so many of the associates of one's youth are playing their parts in the development of the life of our country. Let me pause for a moment to assure the meticulous that the use of the term "advancing years" is sanctioned by the best literary usage and does not imply, in a manner to give offense, a flagging of mental or physical powers. Most of us have still to round out the half century, hale, vigorous, ruddy-cheeked — from one or another cause — hearty youngsters, a little more discriminating in our pleasures though savoring those selected as keenly, a little less abrupt in our final judgments of men and things; in a word, mellowed and ripened. Pausing for a moment to silence the self-conscious and disingenuous protest, I resume. The opportunity is offered us in the gentle month of June to reassemble and to renew, in many cases, an acquaintance that for twenty-five years has been lying quiescent. It is an opportunity,

a golden opportunity, and one that I feel spells genuine loss to every member of the Class who does not embrace it (the use of this particular verb is determined by its literary merit and not for the purpose of "double entendre" as the Strawberry King so felicitously puts it). The time is June 7, 8, and 9; the place, the East Bay Lodge at Oster-ville; the occasion, the Twenty-Fifth Anniversary of the Class of 1901. Gentlemen, I give you greeting.

ALLAN WINTER ROWE, *Secretary*,
4 Newbury St., Boston, Mass.
V. F. HOLMES, *Assistant Secretary*,
131 State Street, Boston, Mass.

'02 There is a second son of '02 in Technology to keep Carleton B. Allen, Jr., company. The young man is Livingston Gardner, son of Charles F. Gardner of Brookline (formerly of Plymouth, Mass.). Young Gardner is a member of the Freshman Class and is planning to take Course XV. — Another son of '02 who is aiming right is Samuel Moore, son of our classmate, Lewis E. Moore of Newtonville, Mass. Last year we reported some remarkable shooting by young Moore who is a student at the Newton High School and captain of the rifle team there. Last June Moore shot 1500 consecutive bull's-eyes at fifty feet with a rifle, which was then a record. Last fall an emulous lad in the middle West went this record some two hundred better so Moore took a try for a higher mark and shot 3000, but on examining the targets it appeared that one shot was on the rim and the record was subject to question. Nothing daunted, young Moore made another try during the vacation in February and this time succeeded in making 3000 perfect shots without any being even near the rim. The mere feat of shooting seven or eight shots per minute and keeping it up all day impresses us as a remarkable exhibition of endurance quite apart from the marksmanship shown in putting all of those shots through the bull's-eye.

FREDERICK H. HUNTER, *Secretary*,
Box 11, West Roxbury, Mass.
BURTON G. PHILBRICK, *Assistant Secretary*,
276 Stuart St., Boston, Mass.

'04 In the words of many a famous politician the Secretary points with pride to the copious amount of space covered by the 1904 notes in the March issue. He also views with alarm the scarcity of material in hand at the present time.

Gus Munster, now purchasing agent for the Boston and Maine Railroad, returned about the middle of March from a six weeks' business trip to Europe. The Secretary succeeded in interviewing Gus on the subject of his travels. Gus states that the portion of his trip which was not entirely occupied by business was taken up in enjoying himself and intimates that from all angles the expedition was a complete success. He was accompanied by Mrs. Munster, who probably did not enjoy the business portion of the trip. They visited France, Germany and Holland. The Secretary assumes that when Gus says he visited France he means Paris. Gus also lays considerable stress on the portion of his time which was spent in Germany. He says that they still know how to make liquid refreshments in Germany and that it is well worth a trip across the pond to be refreshed.

During the month of February, C. H. Stebbins took his annual trip to Birmingham, Ala., the ostensible reason being to ascertain if wrought iron pipe manufacturers were still using the same type of material for manufacturing the center of wrought iron pipe. He reports that no change has been made along these lines since his visit of a year ago.

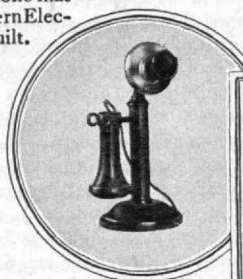
At the Forty-Third Annual Meeting of the New England Railroad Club held at the Copley-Plaza Hotel on March 9, Frank J. Carty was elected President of that Club. As President, he is also a member of the Finance Committee and the Executive Committee. Carty is now mechanical engineer with the Boston and Albany Railroad with his office at the South Station. At the same meeting Gus Munster was also elected a member of the Executive Committee.

As these notes are being written (March 25) the location of the Annual Reunion has not yet definitely been decided, but the annual communication from the Secretary concerning this meeting will probably be in the hands of the classmates shortly after these notes are published.

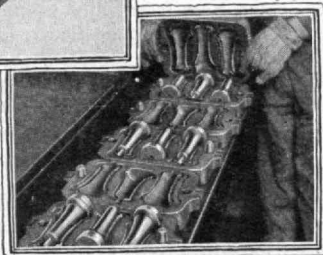
As The Review is not published during the summer months and the Secretary has not sufficient courage to attempt the insertion of 1904 notes in every issue, this constitutes the last class news which you

"THE HOUSE THAT JACK BUILT" — and your telephone

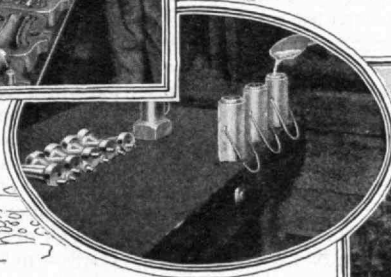
This is the telephone that Western Electric built.



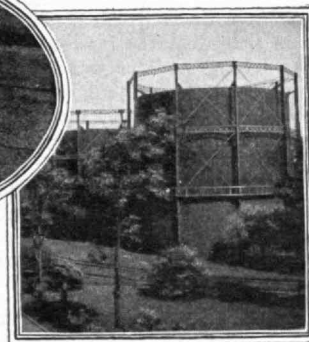
This is the shell that inclosed the receiver on the telephone that Western Electric built.



This is the mould that made the shell...



This is the lead that formed the mould...



This is the plant that made the gas that heated the lead that formed the mould that made the shell that inclosed the receiver on the telephone that Western Electric built.

YOU recall the chain of events in the House that Jack Built—one thing leading to another? When it comes to the Telephone that Western Electric Built you find the same sort of chain.

At Western Electric skilled artisans carry the work of making the Bell telephone on through all its stages.

Industries within an industry have been developed here—not only a factory for producing the many types of telephone equipment, but also a tool factory, a rubber mill, a cable shop, a wire-drawing plant and many others.

For all the world it is like a fairy tale come true. But on how vast a scale—the fact greater than the fancy.

Western Electric

SINCE 1882 MANUFACTURERS FOR THE BELL SYSTEM

1904 Continued

will receive through the columns of The Review until next fall. The Secretary hopes that all his classmates will spend a very pleasant summer and that there may be an accumulation of items of interest during that time which will provide him with sufficient material for fall publication and which will occupy your attention for a longer period than the present issue.

HENRY W. STEVENS, *Secretary*,
12 Garrison St., Chestnut Hill, Mass.

'05 Our concoction in the March Review was evidently an explosive mixture for there was a violent reaction when The Review Editors touched the copy. There was some truth in what we said. What help is it to a poor Secretary that stories of prominent classmates are printed in another section of the paper? For a couple of years now, we have been trying, in the class notes, to get a rise out of somebody, but have never succeeded in denting the hide of any member of the Class. But Mr. Editor, you have done nobly. We thank you.

An interesting article in *Power* describes a twelve-hundred-pound steam pressure testing laboratory, recently completed at the Consolidated Safety Valve Company Works of Manning, Maxwell and Moore, Inc., Bridgeport, Conn. In this laboratory, safety valves can now be adjusted and tested with actual steam at any desired pressure up to 1200 pounds and at any temperature from saturation to 800 degrees. The installation of a 1200-pound pressure boiler in this laboratory anticipated the completion of the Weymouth [now the Edgar] Station of the Edison Electric Illuminating Company of Boston and made possible the testing under actual steam conditions of the safety valves for the 1200-pound boiler in that plant. Of course, this was done by Carl Graesser.

Walter Clarke has a new address, 277 Dravo Avenue, Beaver, Pa., from which point he writes: "Beaver Board is not made in Beaver. This is not a manufacturing town; but a very charming residential borough, so I am told. I came down the latter part of September and have charge of a small mill making thread protectors. Something new for me, but the President has let me have things entirely my own way and professes to be satisfied with the results." Not in great detail, but we are glad to hear from Clarkie and trust he is well placed.

Wonder what Wallace MacBriar, general superintendent of the Carnation Milk Company, did with the discontented cow recently discovered by the directors?

Walter Bent writes from England: "It is difficult for me to think of any personal news that would be interesting. Nothing startling has happened to me. I have made no wonderful inventions or discoveries, but have only worked very hard, especially during the past seven years. It seems to me that the older I grow the harder I have to work. But as the work is so interesting and covers so many things, I am quite contented.

"I have been in England now for six years. We manufacture paper and films at Wealdstone and from here direct our Hungarian factory where we only make sensitized papers. Our English works have about 1000 workpeople and our Hungarian about 175. I only have to do with manufacturing.

"I expect, or rather hope, that my oldest son will enter Technology in October, 1927, although his tastes are more literary now than scientific. I have five children, four boys and one girl, the girl and one boy being born in England."

The annual class dinner was held at Walker on March 13 with just about the usual number and the usual faces present. With a few exceptions, we could list, ahead of time, the names of those who would appear at these parties. They are the standbys. This time the exceptions were Herman Gammons, who decided to switch back last June from '06 where he had been misplaced, and thereby win the Ciné-kodak, and Ralph Patch, who is still trying to ride both horses. And Grove Marcy was not there, which was unusual, but he sent us a letter of apology together with some interesting undergraduate class records. He said: "I am sending these archaeological specimens to you as the fellows may like to look some of them over at the dinner. The reports of the freshman class meetings will arouse your sympathy as Secretary. The settled order of business appeared to be as follows: 1, appoint a committee to obliterate the class debt; 2, elect a wholly new set of temporary officers; 3, rescind whatever action was taken at the previous meeting. It seems the constitution itself was once nearly 'rescinded,' but the chair ruled it was still in effect but suspended. I guess that about describes its status since graduation, too."

Grove's analysis is pat. The minutes of the class meetings give an interesting slant on our youthful activities. Bob Lord looked them

over and professed surprise that he was secretary sophomore year. Bob's entries were brief, so brief in fact that he usually referred to them as 'moments.' In the moments of the meeting of March 9, 1903, is the following upon which we need make no comment. You may make your own. "It was voted to have beer at the next class dinner." O tempora! O mores!

There seems to have been trouble over the finances of our freshman football team for, at the meeting of March 8, 1902, "The report of the football manager was received and laid upon the table until the \$5.10 due the Class from him was paid." On June 4, 1902, "Treasurer Green stated the indebtedness of the Class to be \$23." So far as we know, the Class has never been any worse off since then.

ROSSELL DAVIS, *Secretary*,
Wes Station, Middletown, Conn.
S. T. STRICKLAND, *Assistant Secretary*,
20 Newbury St., Boston, Mass.

'06 Once again the Secretary is called upon to report the passing of a classmate. In this case it is James H. Polhemus, III, who died February 10 at his home, 175 Wildwood Avenue, Montclair, N. J. His death was the result of an illness of nearly a year; complications resulting from an attack of influenza which he suffered in the spring of 1925. Throughout the long, painful illness he retained the same cheery manner and courage which had characterized him through life. Dick, as he was known to his friends and classmates, was born at East Orange, N. J., January 28, 1884. While a boy his family moved to Newton Center, Mass., and he prepared for Technology at the Newton High School. We all remember him as one of the prominent members of the Class. He was on the Track Team in 1904 and 1905 and a member of the Senior Portfolio and Class Day Committees. After getting his degree in Mining, he was a mining surveyor at the Franklin, N. J., mine of the New Jersey Zinc Company and 1907 found him working as a miner in the Joplin district for the American Zinc, Lead and Smelting Company. He quickly rose to superintendent of the mine, and shortly afterwards was made superintendent of the American Zinc, Lead and Smelting Company's Joplin mines. Big Dick, as he was affectionately known to every one in the Joplin field, from mucker to President, with whom he came in contact, was next made assistant to the President. He took the Mascot, Tenn., property when it was merely a prospect and was the moving spirit in its development and equipment. At the time he resigned his position as general manager of mines for the American Zinc, Lead and Smelting Company, at the close of 1914, the Mascot property was treating over a thousand tons a day. In 1915 he joined the New Jersey Zinc Company and was manager of mines for that company at the time of his death. Mr. Polhemus was co-discoverer with J. F. Myers in 1914 of the use of copper sulphate in the flotation of ores. This method is now extensively used for the recovery of zinc by flotation. He had been a member of the American Institute of Mining Engineers since 1910, was a member of the Mining and Metallurgical Society of America, the American Zinc Institute, the American Mining Congress and the Holland Society of New York. He is survived by his wife, Mrs. Linda Rowand Polhemus, and four children; also by his parents and a brother and sister. The Class feels keenly the loss of Dick Polhemus and our sympathy is extended to the members of his family.

The Secretary is indebted to Mrs. Stewart Coey for some of the information concerning the death of Polhemus. Several issues ago we had occasion to refer to a conversation of Mrs. Coey about the absence of '06 notes in The Review. We certainly appreciate her efforts on this occasion and invite other '06 ladies to follow her excellent example.

Professor Locke informs us that R. P. Reynolds, III, for many years superintendent of the Durango, Colorado, plant of the A. S. and R. Company, has been transferred to the Denver office.

The Secretary is all het up this month because he has two letters to include in the notes. The first is from Andy Kelleher, who writes as follows: "I thought it was time that I should give you a little news for the next publication of The Technology Review. I see by the last note that Harold Coes is now Vice-President and General Manager of the Belden Manufacturing Company of Chicago and I want my Class, 1906, to understand that I am in a measure responsible for his promotion. You will see the point when I tell you that for the last five years I have represented the Belden Manufacturing Company of Chicago in South America.

"Charlie Howard, Herbert Whiting, myself and a few others were present at the Phantom Radio Dinner recently given by the Tech-

1906 Continued

nology Club of New York and this was a very fine opportunity for some of the '06 men to get together. Yours truly is the only authentic bachelor in the Class and I think you boys ought to get together and give me a gold medal. However, I have hopes that some day I will be able to give you some real news along opposite lines.

"No doubt most of the '06 men will be surprised to hear that I travel from time to time, and, as a matter of fact, I returned from a ten months' trip last September. This trip took me to the principal cities in Argentine, Brazil, Chile and Uruguay where I am quite a big bug as far as radio and electrical material and automobile supplies are concerned. I look about the same except that the top of my head is bald, and as you can see from the preceding statements I am as modest as usual.

"I think this is about enough for the present and I want you boys to understand that my name is in the telephone book when you come to New York."

Andy's request for a gold medal will be taken under consideration. From the sentence in his letter following the reference to the gold medal, it is suspected we shall have to act quickly if the medal is to be presented while the recipient is eligible.

Our second letter is from Hermann Henrici. We will print it in full although it might almost be construed as a reflection upon the activities of the Secretary.

"What has happened to the 1906 Twenty-Year Reunion? My wife has been counting on a trip to Boston in June and, under the double urge of Orville Denison, I am moved to ask this very important question.

"When I see the voluminous 1906 news in our Review I also wonder if 1906 has an acute case of arterio-sclerosis or some other evidence of premature old age. I suggest that a personal letter now and then addressed to a few members at a time might help matters, or a member appointed from each Course to gather news from the men in that Course would help. Why not just a little of the old 1906 pep?"

Henrici was advised that his letter was very welcome and if enough others would follow his example the Secretary would endeavor to do his part. Both of the above letters are very welcome, however. The idea of putting pep in the Class should initiate letters from others. Write your views on the subject.

Wrong again. Instead of having two letters I have three, the third from our old standby, Cupid Nash. He wrote replying to my note of

sympathy on the occasion of the death of his father. Included in his letter was the following:

"I have just received a letter from P. J. Potter, 9 Church Green, Concord, Mass. He says he is planning on coming to the '06 Reunion. He has a daughter who is a freshman at Tufts. He is a salesman in the Used Car Department of the Packard Company in Boston. He was with us freshman year."

Herbert Whiting's father passed away in March. The Secretary was in New York in February and had a very pleasant visit with Herbert, who is in business in the Grand Central Terminal Building. He is President of the H. S. Whiting Company, which specializes in lighting fixtures for department stores. From the map on his wall he handles work in many of the large cities in the Eastern section of the country.

Percy Tillson also deserves honorable mention this month for submitting a news item. He sent in a picture of H. W. Dean, VI, who has been promoted to assistant to the Vice-President in charge of personnel and public relations of the Bell Telephone Company of Pennsylvania. Herbert has been with the Bell of Pennsylvania since graduation.

Henry Ginsburg called on the Secretary a few weeks ago. He had just returned from a trip to Florida and Havana. He assured me, however, that the scenery and the experience of being in a foreign country were the only attractions which lured him to Cuba.

These notes are being compiled March 25. By the time you read them the plans for the Twenty-Year Reunion should be definitely known. If you have not sent in word that you will attend, by all means do so now. It is our experience that recent small reunions have been very enjoyable. This one is to be the best yet. As Hermann Henrici says, "Why not just a little of the old 1906 pep?"

J. W. KIDDER, Secretary,

8 Harrison Ave., Boston, Mass.

E. B. ROWE, Assistant Secretary,

11 Cushing Ave., Wellesley Hills, Mass.

'07

The following letter came from Frank MacGregor, who is in Wilmington, Del.: "I note the dearth of 1907 notes in The Review, and as I get a lot of pleasure in reading '07 notes I can't expect others to furnish all of them. Perhaps you can glean a few items from this epistle.

"Three '07 men besides myself are here with the duPont Company:



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1907 Continued

Dick Woodbridge, as director of the Brandywine Laboratory, keeps our smokeless powder up to date, and Harold Kingsbury is a patent lawyer in our Legal Department. Both Dick and Harold live within a few blocks of yours truly. Herman Mahr is supervisor of the Indigo Area at our Dye Works across the river in New Jersey and has just recently moved over to Wilmington.

"Clem Bradley suddenly dropped in and spent one Saturday night on his way out to Buffalo. The brass business evidently agrees with him for he has been with the American Brass Company ever since graduation. — Some time ago Cullimore was in town to give an address at a meeting at our High School. I couldn't go that night as it coincided with another meeting which I had to attend that same evening. I saw his name, in the ads announcing the meeting, as hailing from Newark, N. J. (He is with Newark Technical School as Secretary.)

"For long distance eyesight I'll hand the brown derby to Gilbert Small. I was in New York a while ago and was strolling along one side of Times Square. I decided to cross over and stroll down the other side, and when I reached the opposite curb there was Gilbert. He said he had seen me all the time.

"Petie Baker was here over night on one of our semiannual reunions. He is now very busy in his new job as Vice-President of the White Haven Savings Bank, White Haven, Pa. (Otherwise known as Horse-Power Baker.)

"I'm all set to sail on the *Majestic* April 3 for a trip of several months in Europe, so I am brushing up on *parlez-vous*, *sprechen sie*, *si, si, señor*, and so on."

Starr Truscott of the Navy's Bureau of Aeronautics and Prof. C. P. Burgess of the Institute are now working out the design of two of the largest airships in the world.

The Secretary met William H. Martin, by chance, in the Boston Chamber of Commerce Building on March 1. Martin is with Day and Zimmerman, Inc., engineers, making his headquarters at their New York Office, 2 Wall Street.

BRYANT NICHOLS, *Secretary*,
2 Rowe St., Auburndale, Mass.
HAROLD S. WILSON, *Assistant Secretary*,
W. H. McElwain Co., Manchester, N. H.

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'08

The third bimonthly dinner of the season was held at Walker Memorial on Tuesday evening, February 9. The following were present: Frank Towle, Myron Davis, Winch Heath, Gurney, George Freethy, Pop Gerrish, Jeff Beede, Newhall, Eber Wells, Merrill, P. J. Hale and Linc Mayo. Hale gave a very interesting talk illustrated with pictures on blast furnace construction, and we are certainly much obliged to him for a very enjoyable evening.

Linc Mayo reports that money is coming in fairly well from the class dues, as we have received \$87 from seventy-eight men. The balance in the treasury at the present time is \$306.48, with all bills paid. There are still quite a few who have not sent in their checks for dues, and the Treasurer will be glad to hear from them, too.

The writer was in Chicago recently and had the opportunity of visiting a bit with Dolke, Manning and Longley. Dolke tells me his twin girls are pretty nearly ready to go to college.

Clifford H. Boylston is President of Adamson, Boylston and White, Inc., contractors at Birmingham, Ala.

The following clipping is taken from the Boston *Transcript* of January 23: "Mr. and Mrs. Milton I. Voorhees of Jamesburg and Ocean City, N. J., have announced the engagement of their daughter, Miss Virginia Voorhees, to Marcus J. Cole of Lowell. . . . Miss Voorhees is a member of the younger set of Jamesburg and is a graduate of Mt. Ida School at Newton. . . . Mr. Cole is in business in Lowell and is well known both there and in Boston. He is a graduate of the Massachusetts Institute of Technology, a member of Delta Tau Delta Fraternity, the Lowell Rotary Club and the Vesper Country Club of Lowell."

H. L. CARTER, *Secretary*,
185 Franklin St., Boston, Mass.

'10

Bob Breyer, as President of the Automobile Dealers Association of Los Angeles, obtained a good deal of publicity during the auto show there in February, and was cartooned on the front page of the Los Angeles *Evening Herald*. Some of us are achieving fame!

Carl Lovejoy sends in a clipping from the *Engineering News-Record* concerning John Wentworth's election as a member of the firm of Metcalf and Eddy recently, following the death of Leonard Metcalf, '92.

Ralph Hannaford died very suddenly from pneumonia on March 19.

DUDLEY CLAPP, *Secretary*,
15 Draper Ave., Arlington, Mass.
R. O. FERNANDEZ, *Assistant Secretary*,
264 West Emerson St., Melrose, Mass.

'11

Still the names continue to roll in for the Fifteen-Year Reunion of Eleveners and to the twenty-one names that were listed in the April Review may now be added the following who hope to attend: S. C. Willis of Long Beach, Calif.; H. W. Van Hovenberg, Texarkana, Texas; M. S. Dennett, J. N. French and Kenneth Greenleaf of Detroit; I. W. Hausman of Toledo; L. C. Cooley, J. B. Nealey and W. P. Welch of New York; Don Stevens of Passaic, N. J.; and G. B. Cummings, P. A. Cushman, Edward Sisson and E. D. Van Tassel of Greater Boston. This brings the total of those who have at least a fair chance of attending up to thirty-five. It's never too late to decide, you know, and we want a big crowd during the entire proceedings.

Emmons Whitcomb, Chairman of the Reunion Committee, announces that final details of the Fifteen-Year Reunion will be sent out

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1911 Continued

early in May to all those who have replied to the first issue of *The Review*. If you have mislaid your earlier copy received in February, and have not written to Dennie, do it at once, so that you will get final information.

"As a reminder," continues Emmons, "the Reunion will be at the Riversea Club, Saybrook, Conn., May 28 to 31 inclusive. The committee has selected Saybrook on account of the location, midway between Boston and New York, and very convenient to places like New Haven, Hartford and Springfield. There will be plenty of entertainment, including automobile trips, yachting trips, dancing and moving pictures. Send in word at once, if you have not already done so, so that your committee may know how many to count on."

It is a pleasure to announce the engagement of Miss Yolanda Christina Tandberg and Mr. Joseph Nathaniel French of Detroit.

But wait, you ain't heard nuthin' yet! Here's the big life story of the month: Born in Los Angeles, February 5, 1926, to Mr. and Mrs. Charles M. Barker, a son, Charles M., Jr., weight seven and a half pounds. Mother and son were doing well when I saw them in late February and Charlie had grown at least half a foot and was still bragging.

It was my misfortune to find the five other '11-ers in and around Los Angeles away when I tried to reach them — H. C. Frisbie, J. P. Hart, Art Pillsbury, Roy Van Alastine and Vic Willis. In San Francisco I found no classmates, but in Portland I met the two 1911 architects who are there: Herb Angell and Ormond Bean. Herb was reelected President of the Technology Association of Oregon at the dinner meeting held during my stay in Portland, while Bean is now President of the Portland chapter of the American Institute of Architects. He hopes to attend the architectural convention in Washington in May.

I was disappointed to find when I was in Seattle that H. H. Whited was out of the city on a business trip, as was Bert Fyer, but the latter happened to be as near home as Spokane, so I caught him there at the Hotel Davenport. I also unearthed a classmate who has been "unknown" these many years in the person of Frank Dolke. He is the proprietor of the Upton Garage there in Spokane and it was a treat to see and talk with him. I also had a nice chat with Mrs. Foster Russell, widow of our classmate who lost his life in an airplane accident two years ago.

Although there were no classmates to be seen in Butte, Salt Lake City and Denver, I batted 1.000 in Kansas City when I saw A. T. Cushing, I, valuation engineer for the U. S. Department of Agriculture; Theodorus Polhemus, XI, manager of the Falls Rubber Products Company; and Bill Warner, I, of the Warner-Caldwell Oil Company, Nowata, Okla., who journeyed 220 miles to be with me over the week-end. This surely was a great week-end and 1911 predominated in enthusiasm in the Kansas City alumni dinner.

Then in Nashville, where a new alumni club was recently organized, I had a delightful renewal of acquaintance with our good friend Don Southgate, IV, who is President of the club in question. Don has worked up a nice practice of his own and we almost saw Davis Tuck, VI, who was due in Nashville the evening I left for a short visit to his home. Then when I stopped off in Cincinnati, on the way home, to lunch with my Technology friends, those architectural twins, Ed Kruckemeyer and Charlie Strong, were, as usual on the reception committee and all ready with the glad hand. This time they brought along Syd Day, a 1912 architect from Huntington, W. Va., whom many of us '11-ers remember.

Lloyd Cooley has got himself a new job. He is now in New York, where he may be reached at the United Filters Corporation, 25 Broadway. Further details are not at hand, but there are the bare facts.

In closing let me urge all to consider carefully May 28-31 inclusive.

ORVILLE B. DENISON, *Secretary*,
Room 3-207, M. I. T., Cambridge, Mass.
JOHN A. HERLIHY, *Assistant Secretary*,
588 Riverside Ave., Medford Mass.

'12 In only one year from now we shall all be making final arrangements for our Fifteen-Year Reunion. It hardly seems possible, nevertheless, it is the fact. It is none too soon to reserve the date and make plans to be here with as many of the family as you care to bring.

Zip Bent of Tucumcari, N. M., writes that we can count on him one hundred per cent. If Zip can make it from New Mexico, certainly every one along the route can fall in with him and make it a large party. The general sentiment seems to be that this Reunion should be

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1912 Continued

held somewhere near New York as this would be more central for every one, and, as a matter of fact, the Boston contingent have never appeared in large numbers at previous reunions.

In all probability Dave McGrath will be the Chairman of the Reunion Committee and any suggestions should be forwarded him at once.

Fred Barker, Jr., has deserted the field of chemistry and is taking up the banking business. He is located in Syracuse N. Y., with the First Trust and Deposit Company. — Rudie Fox is President of the Rocky Mountain Technology Club this year.

No issue of The Review appears in June, so here's hoping for a real lot of news for the July issue.

FREDERICK J. SHEPARD, JR., *Secretary*,
125 Walnut St., Watertown, Mass.
D. J. McGRATH, *Assistant Secretary*,
10th Ave. and 36th St., New York, N. Y.

'13 Well, that ultimatum in the March Review certainly brought some response. L. E. Wright writes from Cleveland that he is busy trying to get on the market a swing support for holding bottles, and states that "it makes a very satisfactory dispenser for any liquid." If he had not added that he is the Treasurer of The Minchaha Water Company, one might deduce that "any liquid" meant something else besides water. As it is, we'll let it go at that.

W. N. Flanders of Lawrence, Mass., has recently been appointed representative on the Alumni Council for the Niagara Falls Technology Club. — L. B. Hoyt sends a most complete résumé of his work since graduation and it is regretted that more men have not done likewise. During the summer after graduation Hoyt was an instructor at the Technology Surveying Camp returning to the 'Stute that fall as assistant in civil engineering. From 1914 until January 1, 1925, he was with the Massachusetts Highway Commission in charge of many large projects. Since the latter date he has been Surveyor of the Department of Highways at Manchester, N. H., which, properly interpreted, means that he has been in charge of public works in that city, looking after many municipal activities.

W. E. Caldwell, General Manager of the Florence Casket Company,

wrote me a fine letter with several suggestions looking to the betterment of the notes. In view of a personal visit which he has promised to make me in the near future, I shall not, in this writing, give the details of his plans, but after we have talked it over, the scheme will be outlined and put in practice, I feel sure.

If Al Gibson is still alive, will he kindly write me why he has not paid back that \$1000 he borrowed on class day in 1913 to redeem his dress suit from hock so he could go to the senior dance?

The following letter from Johnny Welch was much enjoyed: "Denison was through here just a short time ago, and I had the pleasure of attending a dinner that the Technology men gave him when he was here. It seemed good to see Denison again, and I was glad to hear of the various activities at the Institute. . . . The Technology men here gathered the night of the annual dinner to listen in over the radio, but, unfortunately, I could not attend because of the birth of a daughter — Mary Elizabeth — that same evening. This makes two girls in the family.

"As you will note from the letterhead [Welch Dry Kiln Company], I am engaged in the manufacture of dry kilns for lumber industry. I have a patent on a particular kind of kiln, and have made more or less of a success in this territory, now having about 200 installations in some of the largest lumber mills in the South. Fred Dierks, '12, and Devere Dierks, '15, have joined me in this enterprise. They have our system installed in all their kilns in three large mills in Arkansas and Oklahoma. . . .

"If you know of any of the boys coming down this way, I certainly would like to have them drop in and see me."

A few issues back a call was made on the Class for contributions in aid of athletics at the 'Stute. The keeper of the class goat (that is no joke) sent a check for \$1.00 payable to the Secretary. An attempt was made to endorse the check and it was forwarded to Doctor Rowe with the advice that it be framed or sent to the Smithsonian Museum as a lasting memo of the interest shown by '13 men in athletics. The Doctor, with his usual mercenary bent, pondered not a little on the matter and finally concluded that he had best put it into negotiable securities and use only the income for the promotion of athletics, and in a very appreciative note asked me to express to all the members of our Class, with the exception of Allison T. Smith, his profound indebtedness for a generosity that embarrassed him. Later he returned the check for \$1.00 to the Secretary with the explanation that since said Secretary had not properly endorsed the instrument, it had been returned through regular channels and finally sent to the Doctor by his own bank with a memo that the charges for the darn check would be \$1.00. There's another great deed of this illustrious Class gone to the dogs!

It now becomes necessary to include in these notes a communication that was apparently written on the spur of the moment, without thought and without regard for the feelings of one who has labored in vain these past few months to carry on a real burden. Of course, the letter may be merely the ravings of a diseased mind, or the echoes of a void where a brain ought to be but is not. The truth probably is, however, that Ed Hurst, being an unquestionably loyal Thirteener, was stung to the quick by the harangue in the March Review, realized that the coat fitted him personally and just gave vent to his disgust for not having written to his Secretary before. Be that as it may, your now very humbled Secretary asks each classmate to read carefully the last paragraph of Ed's tirade and, if you feel so inclined, offer something in defense of ye scribe. If you don't want to do this, just add to what Ed has said, for he has by no means covered the subject and the last word in the matter has not yet been uttered.

"I have just finished reading your letter in the March issue of The Technology Review. I at once realize that your capabilities for subterfuge and intrigue have in no way diminished since you left school. You are still capable of attaining your ends by methods which are at once insidious, and entirely outside the pale of what one would expect from a classmate. Let me ask why you set yourself up as a dictator telling us what you will do or won't do, and what we have got to do. One would think that we were your slaves, when, as a matter of fact, in so far as the rôle of Secretary is concerned, you are our servant. You were put there to serve and not to dictate. During your undergraduate days I have often heard you referred to by your political opponents as 'The Little Napoleon.' I realize now how conservative these people were, for the Czar at the height of his regal glory, and Kaiser Wilhelm in the best of his heyday were both virtual beggars compared to you when it comes to the proposition of dictatorship.

"You say that all good Technology men stick to the facts. If this

A Different Kind of Job

Not a desk and time-clock job, at either end of a push button; not the selling of an article, be it an automobile, or any other thing which creates in the buyer more needs, more wear and tear on mind and nerves.

But the selling of absolute future security, creating a calm mind, a serenity of outlook in the buyer.

Not waiting for your predecessors to die; not depending on the lucky chance.

But receiving immediately the amount of money and reward commensurate with what ability you show.

This job is selling life insurance.

It has been noted that many college graduates suddenly give up working for someone else, go into life insurance, and in a short time find places on the lists of high-ranking insurance producers. There is a reason for this which is worth thinking over.

Complete and confidential information, without any obligation on your part, can be obtained by writing to the Inquiry Bureau, John Hancock Mutual Life Insurance Company, 197 Clarendon Street, Boston, Massachusetts, or by application to any of our General Agents.

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1913 Continued

proposition is true you certainly are not a Technology man. For example, merely to point out one glaring error, you infer that your classmates are to be found in the zone extending from Vermont to Nevada. This particular individual happens to come from New Zealand, to say nothing of your classmates from Cuba, France and California, and dozens of others that are not included in the zone between Vermont and Nevada.

"Reading between the lines, I find that your scathing denunciation of your noble classmates is nothing more or less in the last analysis than a desire to avoid work. You frankly tell us that you will not manufacture news. You frankly tell us that you will not coax, cajole or coerce your classmates into sending in items for the class notes. No, you go a great deal further and aim to bring about a situation whereby you will do nothing at all and we will do all the work. You state that you are under no delusion and imply that we are. You are the master cracking the whip and we are mere groveling hounds.

"You imply that your classmates are interested in class news. This is nothing more or less than sheer poppy-cock. The day for that sort of thing really died when the graduation class got larger than a fair-sized family. What your classmates are interested in is real, live, red-hot slander, gossip, and blackmail. We are interested in knowing how nearly you got into trouble with your bootlegger. We are not particularly interested in family statistics nor in the fact that your sixth oldest boy's middle name is Napoleon. What we are interested in, and what most people are most interested in, is the thing that is almost unprintable.

"Perhaps you are going to get somewhere by condemning your classmates as a Class, and perhaps you have no ulterior motive in this condemnation. Perhaps you are actuated by the finest and noblest kind of class spirit. Perhaps you are going to make a wonderful Class Secretary. Perhaps the end you seek justifies the sordid means you do not hesitate to use. Perhaps you are one hundred per cent right and I am one hundred per cent wrong. But, right or wrong, my understanding of the matter is that you are our servant, and that we as a group constitute your master, and that in the position of Secretary it is your duty to serve and not to dictate, and although I'll admit the character, quality, and news value of our class notes has sunk to a horrible, despicable level, nevertheless, you are not helping the situation by ruthlessly trampling upon our very souls with the iron heel of the brutal dictator of a bygone era.

"If I do you an injustice, no matter how remote, I at once apologize. If your motives are pure and ethical; if you are anxious to do all the work and have us do none; and if you really do seek vital facts and statistics of burning interest from your Class, so that '13 notes will possess the real, live, snappy, soul-gripping qualities that will make them sought out by the entire Alumni Association, then, Sir, if all of these things be true — I apologize most humbly.

"Perhaps some of your cohorts of the past, and maybe present, will rise up on their hind legs to defend you. Well, I hope they do, for you certainly need defense."

HARRY D. PECK, *Secretary*,
99 State St., Boston, Mass.

'14

Here we are at the next to the last issue of the year already! But what is worse, not a single letter came in during the past month. There is just time for your letter to be received before the notes for the July issue are prepared. Drop a line today so that the final issue of the year will be our best yet.

Your Secretary is supposed to collect the notes and, apparently, when there are none to be collected to supply some. Very well, then, just note that Priscilla Richmond, weighing ten pounds, arrived at Arlington, Mass., on March 19.

Ross Dickson is always very thoughtful in providing information for this column. Cards drop in from England, Germany, Los Angeles, Jersey City and all way stations at random. It would not surprise us if one came from Iceland or Patagonia next. One dated February 28 has just arrived from Bruxelles, Belgium, containing the notation that Dick had been there a month but was just returning to New York. It is suggested that if any one wants personal shopping done at any out-of-the-way corner of the globe that they drop Dick a note.

It has been noted before that it is a poor month when several clippings regarding Pat Adams are not available. The following was taken from the Boston *Traveler* of March 10: "Lieutenant-Commander Porter Adams, Chairman of the Municipal Air Board, and Chairman of the Executive Committee of the National Aeronautic Association,

is making a study of the air situation locally and will make a report as a result of a conference he had with Mayor Nichols.

"Commander Adams is on from Washington and has accepted the invitation of Mayor Nichols to continue as Chairman of the Municipal Air Board. He is pleased, according to his statement to the Mayor, with the possibilities that exist in this district for the development of aviation, particularly in commercial lines."

The March luncheon was held at the Engineers Club on the second. Atwood presented some very interesting data regarding home building

WHAT IS THERE TO THESE "SUCCESS STORIES"?

PROBABLY you have sometimes wondered, "Where do all the 'success stories' come from? Can they really be true? Is there any one thing that can actually make men successful?"

Our answer will perhaps surprise you. For we say without hesitation that most of the men whose success stories we have published would have been successful without the help of the Institute.

We don't take credit for the fine records made by our graduates any more than Yale or Princeton or Harvard take credit for the success of theirs. We provide no trick formulas to make men prosperous overnight. We simply give them the facts they need to know about business. If they are big enough to use these facts, they succeed. If they aren't—well, they would have failed anyway.

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Only a man who knows all the different departments of business is qualified to reach the higher positions, or to enter business for himself. And learning all departments from practical experience in each is a matter of many years.

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That the Course is authoritative and practical is proved by the calibre of the men who constitute the Institute's Advisory Council. They are:

General T. Coleman duPont, the well known business executive; Percy H. Johnston, President of the Chemical National Bank of New York; Dexter S. Kimball, Dean of the College of Engineering, Cornell University; John Hays Hammond, the eminent engineer; Frederick H. Hurdman, Certified Public Accountant; and Dr. Jeremiah W. Jenks, the statistician and economist.

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1914 Continued

and owning. Lively discussion followed, covering about everything from refrigerators to stoves. Those present were Morrison, Wylde, Stump, H. S. Wilkins, C. H. Wilkins, Fales, Ricker, Crocker, Atwood, Harper and Richmond.

Your Secretary has been appointed one of a committee of five of the Alumni to study ways and means of raising a million dollars for the new Technology dormitories. I guess Mr. Hayden, President of the Alumni Association, has heard of all the 1914 millionaires. Be prepared to step up when the call comes.

Remember that letter and send it today! Au revoir for two months.

H. B. RICHMOND, *Secretary*,

100 Gray St., Arlington, Mass.

G. K. PERLEY, *Assistant Secretary*,

c/o Holtzer Cabor Electric Co., 101 Park Ave, New York, N. Y.

'15 No notes have been received by The Review Editors from the Secretaries of this Class for inclusion in the May issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review Office. Members of the Class having news or inquiries should address them to Frank P. Scully, Secretary, at 118 First Street, East Cambridge, Mass., or to Howard C. Thomas, Assistant Secretary, 100 Floral Street, Newton Highlands, Mass.

'16 The Secretary received a short time ago a letter from Bill Farthing, who is now located at 366 Madison Avenue, New York City. Part of his letter is as follows: "Eighteen of the crowd were present at the Phantom Dinner. We had a great time and discussed at length the coming Reunion. It was suggested that some point about half way between Boston and New York, perhaps Greenwich, would be good for the Reunion as it would be more accessible and we would probably have a larger attendance. This, however, was only a suggestion and I would be glad to know what you are planning."

R. Gruber, X, who is chemist for Merck and Company of New York, writes as follows: "I expect to set sail for Europe next month and am afraid I won't be back in time for the Reunion. But I will

surely join in spirit. There is not much new about myself — still a happy bachelor, and also still (and equally happily) with Merck and Company."

Arvin Page has sent us information from the South, and hopes to be at the Reunion in June. He writes: "I hasten to answer your appeal for dues and enclose a check herewith for the stated amount. Although this answer is not exactly by return mail, it shows, by its promptness as compared with the general run of my correspondence, unusual interest.

"As you probably know, I have just been honored by a postcard from the General Committee whereon appears a mild form of questionnaire. In order to avoid a duplication of information I will answer the same here and now. Confirming the report circulated about two years ago, I admit I'm married and I have a daughter aged one year, more or less. As yet she has exhibited no signs of even a slight inclination toward scientific matters. In fact, all the indications up to the present time predict a future education in a school for oral expression.

"I am still assistant chief engineer of the Bahnson Company and expect to be here from now on. The mention of the Reunion touches a responsive chord in my manly bosom. I surely hope I can be on hand, but can make no definite promise to that effect now.

"The next question, 'What Sixteeners have you seen lately?' makes me feel lonesome. The last one of that glorious Class I saw was Claussen about three years ago. What is more, I have not heard of or from any except for Bill Drummey's publicity in the *Transcript* every now and then and the infrequent and meager notes in The Review. Don't take that last personally because I do not envy you your job at all and I know I have not done much to help you out. I hope you will get a general response so we in the rural districts can get some information on Who's Who and Why."

Irv McDaniel has an announcement to broadcast which is as follows: "Born March 6, 1926, Mary Elizabeth, to Lieutenant and Mrs. Irving Barry McDaniel." He also sends along a short note for The Review: "I just received the March Review with your \$2.00 request. I assure you that I never received a letter from you or you would have received the check pronto. It is now enclosed. Don't know a bit of news except the announcement enclosed within. Never see any of the old gang, and if they do happen out this way they never look one up. Give my best regards to Knight Owen, Hen Sheppard, Don Webster and the rest of the Sixteeners in Boston. I expect to be going ashore in June and might land on the East Coast."

Our last correspondence comes from Hal Gray, now located at Leominster, Mass., who writes: "My letter writing days seem to have gone by for I find that I grow worse and worse as a correspondent. On picking up the March Review I find with a guilty conscience that I am one of the forty-nine unfaithfuls although your letter was put aside with one or two others for answer at later date. I have just dug it out and will try to make amends. I can realize what a job you have ahead of you in getting a bit of class spirit instilled into the crowd in order to get across a decent Ten-Year Reunion. The last two or three meetings I went to after coming back into Massachusetts — alumni dinners and last summer's Reunion — rather took away my class enthusiasm with so little in evidence. I have crawled somewhat into my shell.

"You may count on me for this summer to do my share, however, and I hope that the affair will be successful enough to hold the crowd together in the future.

"As for notes for The Review, there is not a great deal to say. I have changed jobs here in Leominster since arriving from Akron and find myself pretty well located. I am with the Viscoloid Works of the duPont Viscoloid Company as office manager in charge of costs, accounting credits, and so on. It is giving me a very much appreciated business experience. The plant manufactures pyroxylin novelties and toilet sets, and supplies, as one of its largest customers, the Woolworth Stores, with their celluloid line of toys.

"The other plant at Arlington, N. J., boasts of but one Sixteener, Harry Levine, whom I see every month or so when I go down there. Beyond that, my meetings with any of the Class are few and far between. Anderson, who was also out in Akron, came into the plant a few months ago and gave me a little news."

No doubt you all know Chuck Loomis is looking for funds to support our Reunion this June, so if you haven't sent along a check, it is time you wake up and write him. Do it now and show the Reunion Committee that you will support them and plan to be there yourself in June. Chuck, himself, sends in the following notes:

Time: June 18, 19, 20. Place: The Connecticut shore. (Before you

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1916 Continued

read this in print the committee will have announced definitely the exact location). Personnel: You and all your friends.

And that's that. If you had been privileged to read all the enthusiastic replies that the Reunion Committee has received, there could be no doubt in your mind that you were coming regardless of time or distance. Why, some of the young men of 1916 even seemed enthusiastic about the request for a ten dollar contribution, with which certain individuals were favored. If the Committee overlooked you on that ten dollars dues item, 1916-1926, one dollar per year, just send it along now to C. W. Loomis, Reunion Treasurer, 202 Basso Building, Detroit, Mich. It goes for preliminary expenses.

Now about this distance matter. Some of the young men seem to think that they have to live east of the Alleghenies in order to be eligible for the Reunion, but C. F. Gross, XIV, who graces the faculty of the University of California, is coming all the way from Berkeley. The committee hopes that all the good Middle Westerners will take this to heart. There is simply no excuse for any one east of the Mississippi missing the party. And as for the multitudes from New York and New England, they will be there to a man.

Bill Farthing is doing his best to see that Gross has plenty of competition for the long distance prize. He wrote recently for Raef Alfaro's address, and from far-off Salvador he hopes to lure Raef back to the U. S. A. Bill is still with the Houston Properties Corporation in New York and claims to have become a regular New Yorker.

From many sources came the news that Rusty White was back in Boston and could be counted on as among those present. He is New England representative for the new Kardex-Rand, Etc., trust, and will be glad, no doubt, to devise and execute a complete card index of all those present next June. — Harold E. White, II, with Stone and Webster, married long enough to boast two daughters, also hopes to shake the household dust from his feet to join the boys. And that reminds us, — we will tuck it in here inconspicuously, hoping to avoid trouble at home. The Reunion will be stag. Yes, ma'am, strictly stag. This decision was arrived at by a committee of ten, masked and sworn to secrecy, whose names positively will not be divulged. It is suspected, however, that at least six of them were married.

Ed Weissbach, II, is located near Cincinnati, with Spencer Hopkins, II, as a neighbor. He joined the benedicts more than two years ago. —

Dick Hunneman, II, is in the Boston office of the Bemis Bro. Bag Company, as are Tom Little and Sandy Claussen. — Bill Howard, IV, is chief draftsman and smelter director at Kellogg, Idaho, but even that wouldn't keep him away were he not starting a new mill in June.

Saul Hoffman, X, claims he's not married and is getting older and slower every day while the girls get younger and faster. Saul admits to doing the Charleston, so he can't be so darned slow. We have him down as one of those who will be present. Earle Pearson, VI, of the Hood Rubber Company is coming, as is Bill Murdough, I, head of the civil engineering department at Texas Technology. And that's a funny thing, when you think of it. The two chief competitors for the distance prizes are professors. Now, how do you explain the fact that you think you can't afford it? It only goes to show what true learning will do for one's sense of values.

Joel Connolly, XI, Chief of the Bureau of Sanitary Engineering, Health Department of Chicago, is another enthusiastic booster of the Reunion. He bobs up unexpectedly in all parts of the country and ought to be able to find a few sanitary problems along the Sound in June. H. A. Hands, VI, Hood Rubber Company, was planning to come and bring his wife, as were many — or shall we say, all of us. Now, as a technical man, are the chances twice as great, or only half as good — of coming alone? George Spooner, IX, from Council Bluffs, Iowa, pleads the handicap of distance, but by June he, too, will feel the urge. Ken Dean, II, is still in Houston, in the cotton business — one wife, one daughter. Leve Lawrason stopped off to see him. Leve was on his way to Los Angeles to be married. H. Von P. Thomas, from St. Louis, advertising manager of the Bussman Manufacturing Company, answers the roll if the party is anywhere west of New York. Certainly that little ride up the Sound won't keep him away.

Flip Fleming, II, is with Goodyear at Akron, and counts on coming East in June. He too is married and boasts a boy of seven and a girl of three. — G. M. Steese, I, retired from the army in 1923, for disability in line of duty, but doesn't tell us what he is doing. He was married a year ago. — A. F. Lewis, I, is coming from North Carolina, where he is a member of the firm of Spoon and Lewis, with a branch in Ashville: Spoon, Lewis and Camp.

Mark Lemmon, IV, writes from Dallas, where he is practicing architecture, Dewitt and Lemmon, married, two boys. He is also



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1916 Continued

secretary of the Dallas Technology Club, and hopes to be on hand in June. Hal Neilson, VI, is in the army and now stationed at the Army Base, Boston. We have him as a good customer in June.

Roger Lord, II, reports that the pre-reunion reunion, reported in the last issue of *The Review*, i.e., Rusty, Knight and Ralph, and Mr. Volstead, telephoned him at 1.00 A.M., the same morning they talked to Hovey Freeman. In spite of his lost sleep Roger is strong for the party. He is the proud father of twin boys, and a younger daughter. — Bill Shakespeare, XI, operating superintendent of the Anaconda Copperclad Company, says he will make every effort to be there, and, knowing Bill, that means he is coming. Bill, Gene Lucas and Steve Brophy, and one or two other Sixteeners are all involved in one way or another with the Anaconda Brass Corporation. They will probably have to shut up the shop in June. — Marshall Root was doubtful, but now that he knows the party is right in his own back door, we know we can count on him. — Tom Atchison, XIV, with the National Carbon Company, Cleveland, is planning to come, as is Milton Schur, X, of the Brown Company, Berlin, N. H.

V. L. Ellicott, VII, writes, "I married Mary P. Gould on April 5, 1925. Can't think of anything else now." We ask you, do you believe it? What Ellicott really meant was something else again. He was answering the questions on Steve's postal. — Jap Carr, President of the National Tire and Rubber Company, married, no children, will be on hand, as will Hen Shepard, II. Shep is receiving congratulations on a recently arrived daughter. — Al Lovenberg shocked us with news that he would have 3000 little ones by June. They turned out to be chickens. He's married and claims a girl aged three who knows more than all the Technology professors. Now some bright Sixteener will remark, "What's the matter, is she feeble-minded?" — Cousineau, XI, hopes to come from Montreal.

Vertress Young, II, Vice-President of Robert Gaylord, Inc., is pleading distance as an extenuating circumstance, but no doubt will be shamed into attending by what has gone before. He promises free meals, and so on, to all Sixteeners who will call Prospect 1575 when passing through St. Louis. — Howard Green, XI, Secretary of the Cleveland Health Council, married, two children, is coming. — Char-

lie Grozier and Donald Dunn are also in Cleveland. — Gooding, X, chemist with the Strathmore Paper Company, is laying plans to escape long enough to join us in June, as is Jimmie Hyde, I, who is still in the army as a Captain, Corps of Engineers. He is married and has a seven-year-old boy. — Fairfield, II, says, "Maybe." He is a professor at Rensselaer Polytechnic Institute, married and one daughter.

Jimmie Evans, II, is with Johns-Manville, is married and has one daughter. Jimmie wouldn't promise, but we have him down as one of those who will surely come. Lee Jones, traffic manager of the Niagara Gorge Railroad, is in the same boat, as is Leonard Stone. Slow up there, we are becoming involved. What we meant was that they both expected to be present in June. It seems, however, we nearly pinned a wife on Jones, who has none. — Stone is married and has two youngsters. — Walter Binger, I, President of Thompson and Binger, is coming, as are Sandy Claussen, Bill Dunning, Sol Makepeace and L. E. Knowlton. So, also, says E. S. Parsons, II, of Providence, R. I. He reports that Johnny Ingle was married in the Orient last spring, and is head of a big crude rubber concern at the Straits Settlements.

T. S. Curtis, II, will be on hand, from North Attleboro. Charlie Lawrence, VII, is coming from South Acton. Charlie boasts a wife, three boys of his own, and some four hundred others whom he looks after as Superintendent of Schools. — Al Leiber, I, still single, Captain of Engineers, is stationed in Cambridge and will be on hand. — Wallace Blanchard, importing, exporting, or what have you, President of the Blanchard Company, investment securities, is married and has three boys. He didn't say, so we assume he is coming. — B. H. Kerstein, of the Kelsy Engineering Company of Boston, is single and head of the concern. Certainly he'll be on hand. — Joe Barker, VI, who is teaching the present generation at Technology, will bring along any stray Sixteeners who show up there before June. — Ullian, I, is coming on from Detroit. His engineering firm is blossoming out and now has offices in five cities.

Bob Wilson is in Chicago, presumably with the Standard Oil Research Laboratories. — E. H. Townsend, III, dropped in on Sandy Claussen last fall. He is assistant to the President of the National Appraisal Company and lives in Weston near our good friend, Fred Kenney.

Ray Stowell — if we had time we would certainly give you a treat, and have Ray's answer etched. He wields a clever pencil and answered Steve's questions with cartoons. The first picture shows a lean and lanky husband laying down the law to a wife and two youngsters. In the next you find that same husband pushing an enormous pencil across the room. The gist of the matter is that Ray will certainly be on hand in June. You see, a few of us taught him to play golf at the Reunion last year and he will keep coming back the rest of his life trying to get even. — G. P. Allen, writing from Edgewater Park, N. Y., is feature editor of the *Radio Home*.

All those and many more, too numerous to mention now. It's ten long, hard years since Technology pushed us out into the world. Surely it's time to come back and see what the elements have done to those pals of yours. There will be music and laughter, golf, tennis, bridge, and talk, much talk, bells on our fingers and rings on our toes. There's no Review in June, so we will meet you at the 1916 Ten-Year Reunion, June 18, 19 and 20. Let's go.

D. N. BARKER, *Secretary*,

14 Marathon St., Arlington, Mass.

CHARLES W. LOOMIS, *Assistant Secretary*,

7338 Woodward Ave., Detroit, Mich.

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'17

Several members of the Class foregathered on March 11 at the Engineers Club to celebrate. The occasion was a complimentary dinner tendered to the nimble oral Nimrod, Harrison Prescott Eddy, Jr., sometime undergraduate and co-student, with Richard Thompson Fat Whitney and Walter No-initial Harrington, of Technology's Course XI, Sanitary Engineering. There are others than E., W., or H., who should be mentioned among this group of scientific workers of a decade ago. At first thought it would seem that the Cambridge boiler maker, Frederick Bernard, had had something to do along sanitary lines, but officially he was a student of Biology and Public Health and it was in Course VII that he underwent his apprenticeship for the continuous hot water business.

Diligent research reveals the present state of other members of this Class whose official ambition in 1913-14 (and in some cases '15 and '16)

1917 Continued

was Sanitary Engineering. Jimmy Anderson is listed by the last Register of Former Students as branch manager of the Dictaphone Sales Corporation at Worcester, Mass.; Francis Goodale, it says, is chief engineer of the Hawaiian-Philippine Company and may be addressed at Silay-Hawaiian Central, Occidental Negros, P. I. (all of which doesn't even sound sanitary); Ray Goudey, it reports, is a resident engineer of the State Board of Health of Los Angeles (an occupation having something to do with sanitary engineering, although certain editorial writers of the New York *Nation* have cast doubts on the healthfulness of this would-be metropolis). Then there are other alumni of sanitary engineering than these, and some have achieved a certain degree of eminence as, for example, Kenneth M. Lane, our rising young aeronautical engineer, — but he will probably soon make application to be listed along with the looked-for future roster of graduates of Course XVI (*vide infra*). And the list includes Albert J. Tonry who is a salesman for the Penn Metal Company here in Cambridge, and Bill Tuttle, a designer with D. P. Robinson, Inc., down at Ashland, Ky. Nor must we overlook Frank Bowman Hastie, the auburn-haired Captain of Engineers, U. S. A., and every one knows how sanitary the C. of E. is.

There may have been others who were student colleagues of the evening's honored guest whom we have omitted from the above list. To these we apologize. Some we have left out consciously since they have obscured their occupations, whereabouts or other habits, or because listing them does not prove our point, which is that the Class of 1917 has produced one real sanitary engineer at least. For the benefit of those who have read thus far, it is only fair to state that Classmate Eddy is now a member of the firm of Metcalf and Eddy of 14 Beacon Street, Boston, Mass., which was founded by the association of his father and the late Leonard Metcalf, '92. That this came as a deserved honor was the opinion of those who gathered at the Engineers Club to celebrate, felicitate, discuss and commiserate. Outside of Bill, the gathering, as do all such affairs, included certain prominent members of the Class in the vicinity, numbered no other engineer and but one story-telling scientist. The guest was the recipient of two testimonials during the course of the evening and Duck-shooter Bill's responses were adequate, although highly dispersed.

At last Course XVI has been established and the ten years of worry, ancient puns and bum jokes that followed in the footsteps of Course XV, the curricular Federal League of a decade ago, now permits the inauguration of a new movement to constitute Course XVII. Congratulations are due Ed Warner who heads the new Course, which is designated as Aeronautical Engineering. Also, the Course is to be congratulated on having him in charge of it. A full account of the undertaking appeared on page 309 of the April Review.

To any member of the Class of 1917 who can offer a suggestion which will lead to a Course XVII there will be given a suitable reward. Essays and other propaganda accompanied by attested documents should be transmitted to the Secretary of the Faculty for consideration. The diversified talents of the Class should be equal to this occasion. It is fair to suggest that Course XVII might easily be evolved from one of the already numerous options given in the Catalogue, such as, for example, expansion of the work in textiles and textile engineering, so as to include broad and diversified manufacturing problems arising in the manufacturing of turkish towels and couch hammocks, *ad lib*.

Since preparing the above notes, much to our chagrin, we find that there are at least two unmentioned graduates in Sanitary Engineering who are today really sanitary engineers. Since their insertion above would serve to detract from our original thesis, we present them here as an appendix to the notes: Howard Bailey is with Metcalf and Eddy and Ed Twomey is with Morris Knowles, '91, of Pittsburgh, Pa. We hope this belated credit will assuage their wounded feelings in case they deigned to notice the omission of their names from the earlier paragraphs.

RAYMOND S. STEVENS, *Secretary*,
30 Charles River Rd., Cambridge, Mass.

'18

No notes have been received by The Review Editors from the Secretary of this Class for inclusion in the May issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review office. Members of the Class having news or inquiries should address them to Percy W. Carr, Secretary, at 400 Charles River Rd., Cambridge, Mass.

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'19 Your Secretary has very little news regarding the members of 1919 aside from the information gleaned from the cards filled out and returned with the dues. These are coming in very well and it looks like a big Tenth Reunion for us. I trust that every one understands that this is what these dues are principally for, although a part is to be used to pay running expenses.

Since leaving the Institute, Aubrey P. Ames, XV₂, has been traveling all over the globe with the Standard Oil Company of New York, as lubrication engineer. His mail address is 16 Sea Street, Camden, Maine.

Bill Banks, VI, is production manager for the Macallen Company. Bill was married in 1922 and has two children. — Art Blake, II, is N. E. sales representative for the Lancaster Iron Works. His office is at 10 High Street, Boston. Blake questions our card under "married and children." He would like to know where he can find the answers to the questions and also the address of a good fortune teller.

Celeste Brennan, VII, is a bacteriologist in Birmingham, Ala. Her address is 1127 South 12th Street, Birmingham, Ala. — Harold Burbank, X, is still with the New Jersey Zinc Company, at Palmerton, Pa., as chemical engineer in the Research Division.

Henry B. Blumberg, II, is in the wholesale knit goods business for himself at 99 Chauncey Street, Boston. Blumberg was married in 1921 and has a daughter three years old.

Bob Bolan, X, is a chemical engineer for the Hygrade Lamp Company, Salem, Mass., and has a future Technology man in his family, whose name is Peter Bolan. Bob suggests reading the riot act to the inactive members of the Class. I agree with you, Bob. This stationery problem is rather expensive for the number of replies we receive.

R. A. Cartwright, II, is in the insurance game with the Hartford Fire Insurance Company at 141 Milk Street. — B. S. Coleman, VII, is the Industrial Secretary, with the New Jersey Tuberculosis League at 21 Walnut Street, Newark, N. J. Coleman was married in 1922. He informs us that L. V. D. Chandler is health officer of Hackensack, N. J.

Horace W. Dennison, VI, is industrial engineer with the Lapworth Webbing Company of Stoughton, Mass. Denny was married in 1920, and has a youngster, John William, preparing for Technology.

Ev Doten, II, is Detroit representative for the Stedman Products Company, South Braintree, Mass., at 1217 Book Building, Detroit, Mich. Ev was married in 1921.

Jackson G. Fleckenstein, XV, is sales manager for the Fleckenstein Visible Gasometer Company, at 328 Bond Avenue, Grand Rapids, Mich. He was married in 1925.

Herbert G. Fales, II, is with the International Nickel Company at Huntington, W. Va. — George F. French, VIII, is with the Warren Manufacturing Company at 342 Madison Avenue, New York City. George is not married.

Fred J. Given, VI, is telephone engineer in the Bell Telephone Laboratories at 463 West Street, New York City. Fred was married in 1921, and has two children, Donald and Evelyn. Fred informs us that he is about to own a new home in East Orange. He writes that New York is full of '19 men. "In that particular, the various companies of the Bell System have attracted and held Shea, Schwartz, Reynolds, Paterson, Rodgers, Rasmussen, Kelley, Blye, and Gilbert."

James W. Gibson, XV, is in the real estate business for himself at 131 State Street, Boston. We are sorry that J. Gibson considers himself in the class of 1920 instead of 1919. We need all interested men in the Class and are sorry to lose any.

M. E. Goodridge, XV, is assistant superintendent in charge of gas and electric distribution for the Suburban Gas and Electric Company of Revere, Mass. He writes, "I am seldom in Boston to be able to see any of the fellows. Every one meets Art Blake and Art Kenison. I see John Carter now and again in the Boston office of C. H. Kenney, gas engineer. — E. F. Perkins is doing a big business with Deering Lumber Company in Melrose and, as evidence, I submit that he is now joining the Bellevue Golf Club. — Art Griffin is in the construction game with John F. Griffin Company at 15 Exchange Street. Art suggests an annual dinner and day's outing. — Robert P. Hackett, II, is wool salesman at 419 Summer Street, Boston. He was married in 1923 and has a son, Bob, Jr.

Russell Hamilton, X, is a chemist with the Tremont Nail Company, West Wareham, Mass. He was married in 1922. — Richard S. Golmren is resident engineer for the C. T. Middlebrook Construction Engineering Company, Albany, N. Y. He was married in 1925. — James A. Howe is with the Old Colony Corporation at 17 Court Street, Boston. — Ervin M. Kenison, XV, is manager for the General Exchange Insurance Corporation, 544 Commonwealth Avenue, Boston, Mass. He was married in 1923, and has a daughter. He suggests an annual banquet. — Alan H. McIntosh, II, is an engineer with the S. A. Woods Machine Company, South Boston. He was married in 1924, and has a son, Alan C. — William R. Osgood, II, is an instructor at the University of Illinois, College of Engineering.

Sherwood Page, II, is assistant tire engineer at the Hood Rubber Company, Watertown, Mass. He was married in 1921 and has two children, Robert and Jean. — John P. Putnam is an instructor at Brown University. — Arkley S. Richards, IX-B, is an engineer with the Hygrade Lamp Company, Salem, Mass. It's funny how some of these people do not know whether they are married or not, or how many children they have. How about it, Art?

Frederick J. Rasmussen, XIV, is with the Bell Telephone Laboratories, 463 West Street, New York City. John L. Riegel, XV, is at 342 Madison Avenue, New York City. He was married in 1922 and has two children, Mary and John. — Radford W. Riggsby, XV, is City Manager at Durham, N. C. He was married in 1909 and has one son. — Hyman P. Selya, X, is a chemist for the F. E. Attenaux Company, 176 Purchase Street, Boston.

Paul D. Sheeline, IX, is in the banking business with Hemphill, Noyes and Company, 50 Federal Street, Boston. He is married and has a son. — Morton A. Smith, VI, is owner and manager of The Radio Shop, 14 Robbins Block, Great Barrington, Mass. — Arnold B. Staubach, IV, is doing engineering with George W. Harris, C. E., 1 Hinck Building, Montclair, N. J.

Eaton Weber, II, is mechanical engineer with the Bailey Meter Company, 2015 East 46th Street, Cleveland, Ohio. He was married in 1922. — Francis A. Weiskittel, XV, is Vice-President and Treasurer of A. Weiskittel and Son Company, 4500 East Lombard Street, Baltimore, Md. Weiskittel suggests that we have a get-together in New York City. Good idea, Don. — Alexis R. Wiren is executive secretary of the Russian Student Fund Inc., 347 Madison Avenue, New York City. He was married in 1920.

The class picnic here at Thompson's Island worked out so well last June that your Secretary would like to invite all members of the Class of 1919 down here for another outing June 26. We will have a boat at the Public Landing at City Point at ten o'clock and one returning from



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1919 Continued

here at about five. Let's see if we can't have a good turn-out and make a big day of it.

Will you please let the Secretary know if you will be present so that he can plan for a luncheon?

PAUL F. SWASEY, *Secretary*,
Box 1486, Boston, Mass.

'20 I wish more of you had the spirit and ambition of Buck Clark. After reading the last Review he sat right down and wrote in spite of the fact that he had his writing arm encased in a splint. (He didn't say why so we shall assume that he has been emulating the Prince of Wales.) Buck hints darkly that a certain prominent member of this prominent Class who has done considerable shouting anent his freedom from the bonds of matrimony has been in truth using such loud protestations as a verbal smoke screen. Lest this column become even remotely identified with such sheets as the late lamented *Broadway Brevities* I will not give the gentleman's name, but will only say that it might be found on Page 1 of the Providence Telephone Directory in conjunction with the initials N. G.

Buck says he has heard from Bob Patterson who is married and living in New Rochelle. Buck himself is still in the shingle business and, according to his stationery, hangs out at the Park Club, Pittsfield, Mass.

Ev Freeman is still relentlessly hounding me for that bathing suit that some Harvard man swiped down at Mayflower Inn. He also takes occasion to defend the fair name of the town (or is it city?) of Providence. He says it's at the head of Narragansett Bay if nothing else. It seems that what he particularly objected to was my application of the epithet "one horse" to his home town. He says, "I read with grief and mortification the appellation which you fallaciously applied to our metropolis. Grief because some might believe you and mortification that a classmate of mine should be so unobservant as not to realize that in a college town the students always have 'ponies.'"

Such expert testimony leaves me without a comeback. I can only hasten to pass the word to all graduates of Course IX that, contrary to

general opinion, there is still an opportunity for engineers such as described by Ev — in Providence.

Harm Deal is no longer with Station WOI, Des Moines. Harm went into radio research work when he left the 'Stute and came to Iowa State College in 1922. His long experience as an amateur, commercial and navy operator made him eminently suited to the task of installing a broadcasting station at Ames. The first station was a 100-watt outfit which set remarkable records at the time. From then until now Harm constantly redesigned and improved the original apparatus until the set is now of 750 watts and is a very efficient outfit judging from the enthusiasm shown by radio listeners.

Bunk Talcott was married in January to Miss Ruth Thurston Herrick of Philadelphia, a Vassar graduate. Mrs. Talcott's father is President of Girard College in Philadelphia.

The time of the big '20 Reunion Dinner in Boston is fast approaching. If you haven't received the details by the time this is published, you will shortly. And you're expected to be there.

HAROLD BUGBEE, *Secretary*,
9 Chandler Rd., West Medford, Mass.

'21 No notes have been received by The Review Editors from the Secretaries of this Class for inclusion in the May issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review Office. Members of the Class having news or inquiries should address them to R. A. St. Laurent, Secretary, 431 Oliver Street, Whiting, Ind., or to Carole A. Clarke, Assistant Secretary, 121 Shearer Street, Montreal, P. Q.

'22 A frantic telegram received in this office one day before these notes were written seems to indicate that our Traveling Secretary has finally arrived at the Elysian Fields, which, certainly, no one ever before thought were in the vicinity of Chicago. Via Western Union, graciously prepaid, there comes the following gasp: "Chicago customers cause my literary effort to be lean but expensive hospitality of T. Nicholas Berlage so gracious may make publishing of his political history

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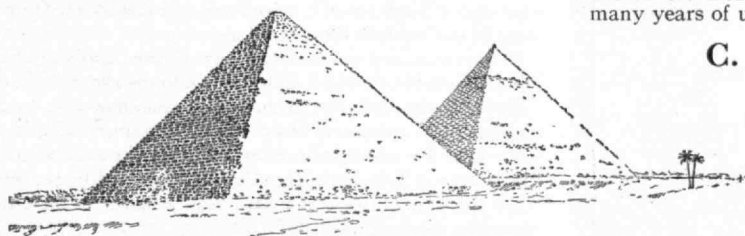
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1922 Continued

unethical Satchell Shirey report Rochester full strength for reunion Joe Keegan accepted power job giving working demonstration inspection find Cleveland customers already in training and sit my blessing Heinie."

Other than promptly disclaiming any responsibility for transmission errors, concealed libel, or what not, we scarcely know what to say. Particularly, however, we would disclaim any moral responsibility for the state of Heinie Horn's soul, if any. It begins to look quite a bit as if business would take us to Chicago before very long. . . . If so, we shall attempt to determine the precise situation in that metropolis. We are sorry to have no more news to vouchsafe to Mr. Horn's clientele, but we hope that by the time the July issue appears we shall have been able to instill into our Traveling Secretary a new and strengthened regard for the responsibilities, family and professional, which now seem to have grown dim. Heinie must somehow or other be got back to Wilkes-Barre as soon as possible. Applicants for the task of honorary pallbearer will be received in this office up to May 15. Enclose stamped, self-addressed envelope for reply.

Finally, it would seem, our Field Secretary's lips will hereafter be sealed regarding the peregrinations of one Wilfrid M. Thomson who, it is rumored, strove frantically twenty-four hours ago to get in touch with the General Secretary to inform him that from Chicago Mr. Horn had embarked upon a train for Joliet, Ill., and had not got off until the conductor waked him up in Salt Lake City.

As evidence that the hounds of spring are on winter's traces, we present the following: Mr. and Mrs. Marshall Hodgman announce the marriage of their daughter, Eunice Wade, to Mr. Raymond Crawford Rundlett on April 7 at half after six o'clock in Saint Michael's and All Angels Church, St. Louis." The sincerest congratulations of the Class are herewith extended. The Secretary had the pleasure of seeing Ray about a month before the all-important event and found him, as was fitting, at the top of the world. He has left the Gilchrist Company in Boston and is now associated with Daniel Lowe and Company in Salem.

Constant Reader, Old Subscriber and Pro Bono Publico will recall the reference in these columns a month ago by Bill Stose to Lewis Tabor's proud possession of a Packard touring car. There is something

about Philadelphia atmosphere in which the graduates of Course X particularly seem to thrive. We present the following communication from Lewis himself: "Certain sections of the last Review seem to indicate that Bill has been writing to you *re* Packards. You will, no doubt, be pleased to learn that Bill has taken unto himself a type 116 Packard 6, in which he yesterday passed his exam for an operator's license.

"It is a very peppy little vehicle, and can be made pretty nice if a little work is done on it. I venture to predict that Bill will be paying part of his salary in fines before long if he continues to push this vehicle around like a flivver, because when so pushed, it picks up its rear quarters and assumes a gait of from 40 to 45 m.p.h., with a maximum of 65, when free of carbon, and doesn't even begin to vibrate below 45. I've just finished scraping carbon and grinding valves on my vehicle, with the usual results of such an operation.

"The textbook on arithmetic is not forthcoming this winter. Instead of writing, I've been doing considerable reading. However, it seems that the Academy will not be able to do without my services next winter, so it looks as if some writing might be done then.

"I'm meditating a trip to Nicholasville, Ky., during the spring vacation, going over the road. How about joining the party! One thousand three hundred and fifty-four miles in six days driving, and three days there, starting March 26."

The Academy to which Lewis refers will be recognized as the Episcopal Academy in Overbrook at which Lewis occupies a position analogous to that of Professors Lewis, Norton, Tyler and Jackson at the Institute, all rolled into one.

Nor is commerce the one field in which Course X men are succeeding. Science in Philadelphia has its predominant exponents among the younger generation. We note with interest the program for a conference at the Engineers Club in Philadelphia on February 10 upon which is emblazoned the name of Erb Dittenhofer, engineer of the Gotham Industrial Corporation in the Research Department of the Gotham Silk Hosiery Company. At the morning session of this conference Erb presented a paper on "Economy due to Power Factor Operation" hobnobbing with such worthies as Dr. Green, Dean of the Mechanical Engineering School of Princeton, Ward Harrison, Director of Illuminating Engineering at the National Lamp Works in Nela Park, and Francis Hodgkinson, Chief Engineer of the Westinghouse Electric Manufacturing Company. It had never occurred to us before that research in silk hosiery led to a study of power factor corrections and even now we don't quite grasp their concomitant significance. Here, however, is the letter which Erb sent us on the stationery of the Hotel Chatham in New York:

"When I first thought of writing you, I was going to type it, but it soon occurred to me that this would be too cruel as it would prevent you from employing your It was with great difficulty, but pleasure paragraph with which you greet Bill Taft, Bill Stose, or myself.

"I write to air a grievance not only upon my own behalf, but also upon that of the four horsemen. In the last Review but one, you mentioned the fact that now that Bill Taft was in Cuba we had been broken up. 'Tis false. Since matrimony has not done so, can you imagine that a few puny miles can really separate us? Not only that, but we even publish a paper once a month, the *Gangster* by name, which is sent to Cuba. Sometime, if you are really good, we will let you see a copy. Oh yes! you likewise are remiss in one more item, — there are five, not four of us. This is logical, if there were four 'Three Musketeers' why not five 'Four Horsemen'? Refute this at your peril. The fifth is Carl Kudlich, II, married, working for the Stehli Silk Company of New York.

"The enclosed may be of interest. Considering my marks in Triple E, Hudson has a perfect right to laugh himself to death. Nevertheless, it happened, and at least I came out of it alive. The funny part of it is that this was one of the 'Thank God, that's through' courses and I have done more work in that line than any other type of engineering. I get a good laugh out of it myself and you should too if you remember some of our work in Electrical Lab.

"Otherwise, not much news, if any. Roger Ingalls still has the same job, as has Eddie Koehler. Bill Taft you know about. Used to see quite a bit of Charlie Roll, but haven't heard from him since he departed to insulate parts unknown. Brod Haskell, I understand, is, or was, in Cuba for a few months. I ran into Paine on the avenue the other day. I have been in New York since October and am, I think, here for good. Since the first of the year I have been assistant to the General Manager, plus the program title."

On March 19, thoughtfully just in time to catch this edition, Walter Saunders dropped in to see us. This had not happened before in a year



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1922 Continued

or so, and we were consequently able to exchange a good deal of miscellaneous information. Walter, who is now safely and happily married, is with the Grinnell Company in Providence and gets to Boston occasionally. The technical reason for this trip was an investigation of sprinkler installation in the plant of the Merrimac Chemical Company. Walt had been forced to inhale deep draughts of amyl acetate for several days and assured us that the smoke-laden atmosphere of The Review office seemed like attar of roses by comparison.

Some weeks ago we had a letter from one Walter Julian Hamburger, industrial engineer with the Atlanta Paper Company which, as has already been pointed out to you, has its headquarters through an extraordinary coincidence at Atlanta, Ga. Walt is quite insistent that he is a member of the Class of '21, although we do still maintain that there are those who would disagree with him. On March 26 his engagement was announced to Miss Janet V. Lambert of New York City. Once again we offer the sincere congratulations of the Class. Walt must either own his allegiance to it or return the congratulations unopened, postage guaranteed.

Beyond that bill from Uncle Horace for fifty-four cents worth of stenography, which we blush to say we have not yet liquidated, there is nothing else this month in the folder. Somehow we didn't make a memorandum of the fact that Harris McIntyre called some weeks ago. Happily and inevitably, however, the fact remains in our mind. We chided Mac somewhat about the non-appearance of Course XV notes in The Review and he promised to be a better boy, which, you will see by reference to the columns below, he is emphatically not. This time, however, we must not be too harsh. The telephone company which Mac still represents, although now in Providence, took the liberty of spelling your Secretary's last name with the initial *J* instead of *H* to the production of great annoyance, inconvenience and mental anguish. We told the decisive Mac, who seized the telephone on our desk, talked rapidly in several languages to several different district offices with the result that next day a representative waited upon us with a credit memorandum for some \$9.75 as balm to our outraged feelings. The next time Mac comes in we shall present him with the certified check of ten per cent of this amount, plus our extreme gratitude.

There is no Review issued in June, of course, and nothing more will reach you from '22 until July. If all plans go well, your Gensec will, by the time the issue sees the light, be voyaging rapidly eastward in the general direction of the European continent. Therefore, we shall either have to write up our notes rather early and have them out of date by the time this issue appears, or designate some conscientious soul to do it. We had thought of Heinie Horn, but now we don't know. Perhaps somehow we shall be able to do both. Meanwhile, if any members of the Class have suggestions to make to the Secretary on how he shall while away the time in Paris this summer, they will be very gratefully received, placed on file, and, where possible, acted and reported upon. God rest you, Merry Gentlemen.

ERIC F. HODGINS, *General Secretary*,
Room 3-205, M. I. T., Cambridge, Mass.

COURSE XIV

The response to my questionnaire from Course XIV has been quite gratifying. Eighteen of the twenty-seven members of the Course have responded with answers. The old slip-stick says that this sixty-six and two-thirds per cent. My sincere thanks goes out to all who answered. And to those who didn't answer — what is the matter? I know that some of the addresses used were not correct, but this cannot begin to account for all who did not answer for not a single questionnaire was returned by the postal authorities. Joe Cosgrove seems to have dropped from sight. Dean did not answer. Are you still with the Public Service of N. J., Dean? Rumor says you are. And where are you, Bill Howe? Rumor, persistent rumor, has it that you are married. How about it? And Nelson is lost! Also Jim Sarros. Harold Stanley does not report, nor Bob Stuart. But rumor says that Bob is with the Blackstone Valley Light and Power Company near Providence. Let us hear from you, Bob! And we have no news from Vold. He was last heard from in Chile, S. A., but perhaps the foreign mails are slow. Finally, Zimmerman is lost. All the rest of the course have answered present. News from or about the absentees is greatly desired. Let us hear from you. And if we have skipped any one, please pardon the unintentional oversight and drop us a line.

If I were to write down all the news, addresses, comments, and so on, of the members of the Course who replied to the questionnaire, I am sure that all the 1922 notes in The Review would be Course XIV.

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1922 Continued

And so, in this report to the General Secretary, I am going to touch only on the high spots. Before June I hope to draw up and mimeograph a Course XIV circular letter, giving each man's address, business, personal data, and so on, and this will be mailed to all members of the Course and to those who are interested in us: like Pa Goodwin, the General Secretary and so on. I shall go through the answers to the questionnaires in the alphabetical order of the names of the members of the Course, so let's begin:

Monte Banks is with Southern California Gas Company as the sales supervisor of the San Bernardino Valley Division. He is married and has a young nine-months-old son, David Collins, who is even now getting ready for Technology. As an educator, Monte, I object to any one predetermining a child's education. He sent in some very interesting data on Ed Gruppe. He wants to know about Ed Hollender. I am glad to say that some news of Ed is in these notes.

Ferris Briggs is with the F. A. Ferris and Company of New York City, dealers in hams and bacon. He lives in an apartment in Greenwich Village. He started with Anaconda, then went with National Carbon, then toured France for a while, and is now with the hams and bacon as noted above. He wants to know about Keith. Does any one know of Keith's whereabouts?

Phil Caplain is sales and credit manager for Caplain and Goldman, New York City, hat manufacturers. He admits using the slip-stick now and then.

A. L. M. Dingee is an instructor in physics at the Institute. He is still chasing his Ph.D. degree. He is married and has a young two-months-old daughter, Ruth E. He sent in some very interesting news about Max Ulbrich, Stuart and Dean. I agree with you, Ding, on the quality of dumbness of the frosh, but the seniors are no better.

Richard Downing is assistant engineer with the Public Utilities Commission of Maine. — Frank Fletcher is a chemistry instructor at the Drexel Institute at Philadelphia. You can bet that I will look you up the next time I am in Philly, Fletcher.

Charles Fulton is a U. S. Revenue chemist in Omaha, Neb. He promises to check up any "spirits" which the Course may have. He is married and has a young son, eleven months old, Charles Lee.

Ed Gruppe is now a power engineer for the Utica Gas and Electric

Corporation, Utica, N. Y. He is married. He has been in the electrical contracting business for himself, but now is back in the public utilities game. He has just been elected President of the newly organized M. I. T. Club of the Mohawk Valley. Good luck to you and the Club, Ed. He sent in some news of Monte Banks and Dingee. He wants Bill Howe's address so he can write him. So do I, Ed.

Ed Hollender is with the Foreign Section of the Bond Underwriting Department of the Equitable Trust Company of New York City. This necessitates extensive trips abroad. Perhaps this is why we have not heard from him so often.

Milton Manshel is Vice-President of the International Ticket Company of Newark, N. J. They do railroad and theatre ticket printing. He reports seeing Edgar Dean, Phil Caplain, and so on, at the M. I. T. Radio Phantom Dinner. So Dean is at least alive. He sent in some very interesting data concerning Martha Eiseman, to which that lady also referred in her questionnaire — about which immediately.

Martha Eiseman Munzer is now a Household Engineer, as she herself puts it, at Hewlett, Long Island. She was, as we all know, married two days after graduation. She has three children, Edward, Jr., two and a half years old, and Martha Joan and Stella Edith (twins), six months old. She claims the Course XIV Baby, but so does D. K. Worcester, whose son was born November 10, 1922. He, however, was married long before we were graduated and so perhaps his claim should be ruled out. Let's have some expressions of opinion on this before we take a vote. Anyway, we claim the 1922 Class Baby.

Ken Page sent in a long interesting letter with his questionnaire. I wish I had time to answer all these letters personally, but I guess the general circular letter will have to do, Ken, or else I will lose my job! If I answered each and every letter I would have no time left for laboratory report reading, and as I have only seventy-five of these a week — ! You should keep in touch with the Class and Course through The Review, too! Ken is another power engineer. He is with the Counties Gas and Electric Company of Norristown, Pa. He says, "No, thank God!" in answer to my question: "Are you married?" And yet he claims not to be a woman-hater.

I come next in the alphabetical list of names of the members of the Course to — but you all know what I am doing. If you don't know, look at my address. It tells the story. So — proceed!

A. F. Robertson writes in to say that he is now in Butte, Mont. According to The Review he is listed as 1925, but he of the perborate fame wishes to retain his 1922 rating. I am sure it will be all right with the Course, Robbie, but since you have not graduated I don't know how you stand in the Alumni Association. Why not write in and find out? Robbie is ever in the move, — Canada, Arizona, Montana, but he did manage to get back to Boston last winter. From his letter I guess he is in the mining prospecting game with radio on the side. Write again, Robbie, and be more specific, will you?

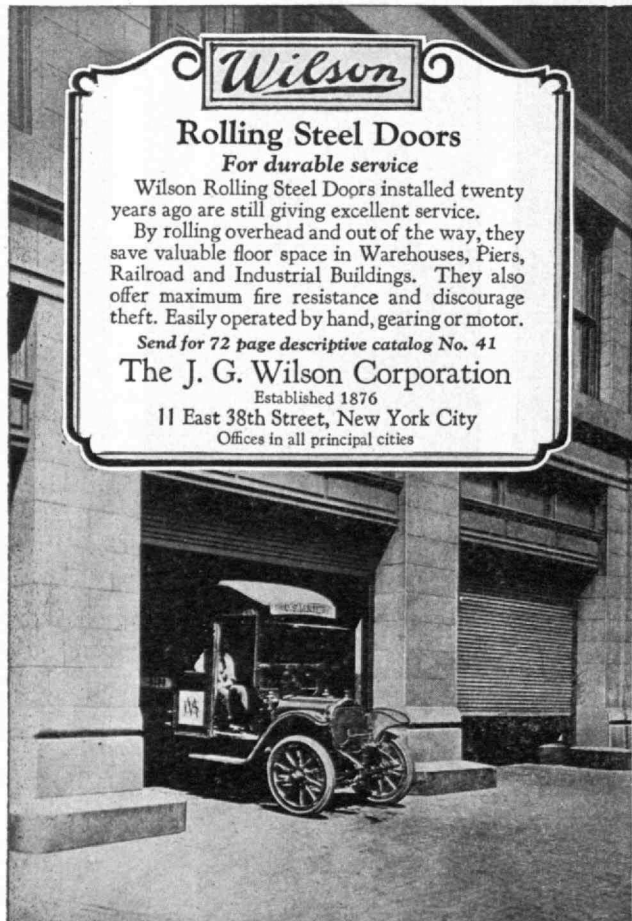
John Sheffield is a sales engineer with the Dorr Company of New York City. He is now traveling in southeastern territory on a business trip of a Chemical, Metallurgical, Industrial and Sanitary Engineering nature. Gee, do you have to know all that, John? He is married and has a young son, ten months old, John Ridgway, and adds: "He will be 'XIV' — Dr. H. M. G., please note."

Max Ulbrich is now an assistant power engineer with the Associated Gas and Electric Companies of Oneonta, N. Y. He also sent in a letter with his questionnaire. He told of a trip to Europe last winter, staying several months, when the money gave out and he had to return. He visited Germany, Czecho-Slovakia, Austria and France. Max says if he had the money he would have stayed in Paris. He describes Czecho-Slovakia as "a funny little country!" He would like to know where Vold is, also Stanley, Fulton, Banks, Howe and Gruppe. Some of them have answered, Max, and the news gathered from them is in these notes. We wish the rest would answer.

Vernon Whitman is an assistant physicist at the Bureau of Standards in Washington, D. C. He is also studying for a Ph.D. at the Johns Hopkins. We will have a doctor in the Course yet if Ding and Vernon keep it up, and as for myself, well, I wouldn't mind one, but —. He gave us some information about Dingee.

Finally D. K. Worcester writes that he has left the New York Telephone Company and is now with the Farmer's Loan and Trust Company of New York. He is married and has two children, Dean K., Jr., born November 10, 1922, and Shirley, born November 10, 1925. He says that he sees Ferris Briggs from time to time when the latter emerges from the brine pits and leaves the other hams alone.

This ends our notes for this time. I would be glad to hear from any



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1922 Continued

of you at any time. I would be glad to see any of you if you should come this way. Be on the lookout for the 1922 Course XIV Circular Letter and Directory.

ALBERT P. POWELL, *Secretary*,
Pennsylvania State College, State College, Pa.

'23 It is with mingled joy and sorrow that we realize another cycle of The Review is drawing to a close. One more issue in July and then silence until November. You birds who have put off writing to your Secretary ever since last November, just fill up the old pen and say Hello before we close shop for the summer.

Since the last Review, Kibbe Turner, of Course X, has tendered his resignation as Secretary, due to increased home cares in the form of a son, George Kibbe, 2d, born January 19. Sorry you have to quit us Kibbe, but — congratulations. Also, since the last Review a couple of postal cards arrived from two members of the Dirty Dozen, requesting in no uncertain tones and in green ink a more than mild desire for some Course X news. It is true that Course X hasn't had much prominence in the columns, but the fact that the anonymous green ink splashers have registered a kick is refreshing and savors of better things in the coming issues. As a starter, I am going to ask one of these two-twelfths (either one) of the Dirty Dozen to take one step forward and assume the title and duties of Course X Secretary. If you will just drop me a line and let me know whom I may have the pleasure of welcoming into the ranks of the scribes, I will send you full particulars. If you really mean business and want to see Course X in the class columns, here's your chance to help out. In the meantime, I would like to hear directly from all Course X men so we can have a section in the July number.

This is the month that our class insurance falls due. Don't let it slip! Be loyal to '23 and pay up promptly.

We were very sorry to hear of the violent death of our Classmate, Palmer Hutchinson, in March. Palmer was in Alaska accompanying the Arctic Expedition of Captain George Wilkins as a news correspondent. He was instantly killed when he walked into the whirling propeller of the big plane which was to be used to cross the Arctic wastes. We wish to express our sympathy to his family.

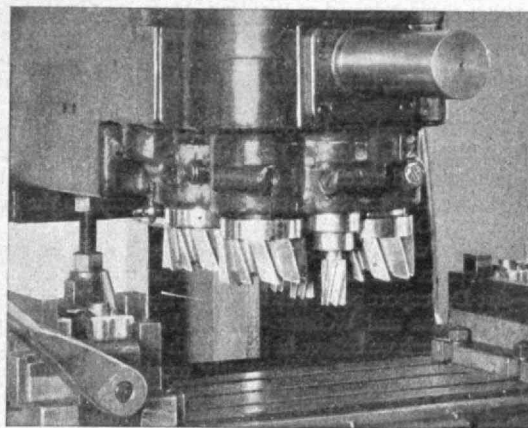
ROBERT E. HENDRIE, *General Secretary*,
12 Newton St., Cambridge, Mass.

COURSE I

We were comfortably ensconced in a swivel chair in the office of C. B. Breed, consulting engineer. Outside lay the desolation of a New England winter. Within, on the desk, lay a letter from another Tropical Tramp. Our thoughts were far away from the water supply problem which had occupied our attention most of the day. We saw rugged, barren mountains, bleak and snow-capped, and a tiny cavalcade of poncho-clad riders urging weary mules up steep slopes to the triangulation station above. The ringing of the telephone hardly roused us from our reverie. "*¿ Quien habla?*" we drawled into the transmitter. Harshly, roughly, the voice of Bob Hendrie came over the wire. "Do you function in the next Review?" Our vacation was over.

We went over the files of The Review to learn what had been written since Bob had assumed the stewardship of the Course I notes. Our impression was that the excellence of the material rendered it advisable for him to continue the work. But Bob was adamant. The cares and burdens of the Telephone Company rest heavily on his shoulders these days. We must needs resume our duties as a scribe until we again put long miles between us and our native heath. So, we peck at the keys again to thank Bob for his efforts, to solicit the co-operation of our silent Assistant Secretary, and to chronicle the activities of the great and the near-great.

First come the announcements. A few months back Bob stated that Herb Leisk had headed for Florida. We are unaware whether or not he ever reached the mangrove swamps of that low-lying and most uninviting peninsula, but an engraved note bears witness to the fact that on October 10, in Flushing, N. Y., he was united in the bonds of holy matrimony to Miss Elizabeth Sammis. As it is customary to tender congratulations at this point, we will conform to the dictates of society, though we have yet to be convinced that the freedom of a Tropical Tramp is not a more delectable status. We also understand, as the result of a careful perusal of a Christmas card, that our Herbert now resides in Newton and is presumably engaged in business in this vicinity. Confirmatory reports are now in order.

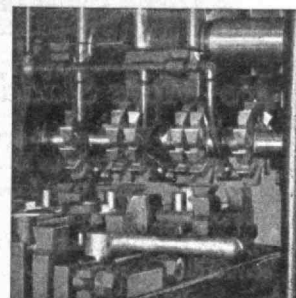


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The advantage of such operations depends largely on the durability of the cutters. Too frequent stops for sharpening or changing cutters are disastrous to the production schedule. As the best insurance of durability, long life, and long service between sharpenings Brown & Sharpe Cutters were chosen for these and many similar jobs.



BROWN & SHARPE MFG. CO.

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1923 Continued

At about the same time an invitation arrived requesting our presence at the nuptials of Miss Eleanor Drew and Olcott Lorin Hooper, which happy event occurred in Wayland, Mass., on October 3. Only the necessity of making a few sun observations on said day in Latitude $17^{\circ}-52'$ S, Longitude $170^{\circ}-10'$ W prevented us from offering our congratulations in person, but we still entertain hopes of doing so at their home in New York.

More recently a card from Providence brought word of the engagement of Miss Barbara Allen to James Frederick Brittain, while the combined efforts of the Correos of Mexico and the U. S. mails told of the arrival of a daughter, Senorita Esperanza Beatriz, in the home of Bernado Elosus. Our best wishes all around.

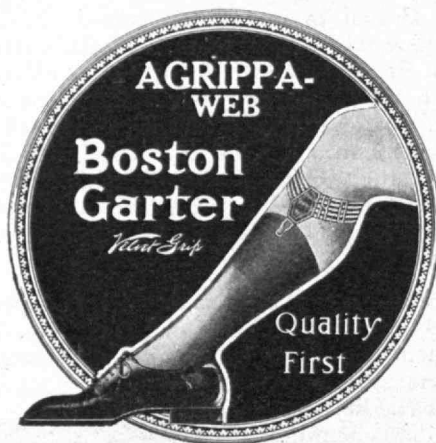
Of the others, we have learned relatively little since we returned. Thompson reports that he is still with the Sanitary District of Chicago. — Art Davenport is, or was when last heard from, in Littleton, N. C., with Stone and Webster. — Allen Parker has departed for Minneapolis, though we believe he is still with the Travelers Insurance Company. — Sailor Dresel is apparently too busy running up and down the Pacific Coast inspecting for the Federal Mutual Liability to spend much time in such mundane pursuits as writing. — Alec Stewart is in the Boston office of Lockwood, Greene, but the wanderlust still grips him and he is contemplating shifting to other fields of endeavor. — Si Rice recently located in Philadelphia, with the American Bridge Company, we believe.

In conclusion, a word regarding our own activities. After spending some time with C. B. Breed in connection with the development of a summer resort on Phillips Lake, Maine, we signed on with H. P. Converse and Company of Boston, as engineer for the contractor on the layout and construction of the Arlington Memorial Bridge in Washington and hope to be able to report, by our next issue, that all is well along the Potomac.

J. M. ROBBINS, *Secretary*,
42 Oak St., Belmont, Mass.

COURSE VI

A breezy letter has come in from George W. Bricker, our classmate, who put in two years at Harvard Business School after finishing at



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In many pleasing colors, 50c the pair.

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Velvet Grip Hose Supporters for All the Family

How Did Your Garters Look This Morning?

Technology. Brick writes from Fort Worth, Texas, and you can judge his enthusiasm for yourself:

"I was sent down here last August for a few weeks' stay, but have three other men working with me now and not much chance of leaving for a few months yet. I am with H. C. Hopson of New York. Can you imagine a Course VI man becoming an accountant? It's in the public utility field so that's not so bad. I am doing an analysis of fixed capital down here in connection with a rate case, and am learning more about a public utility in a short time than I ever expected to learn in the next several years.

"I was up in New York last Christmas. Saw Tommy Rounds; he's looking prosperous and living in Yonkers. In fact, he can throw his cigarette out of the south window and it'll land in New York. Tom is still with the New York Central. — Rod Goetchius and a couple more of the boys are still with the American Tel. and Tel. — Bob Henderson was shifted to Buffalo some time last summer with the long lines department of the American Tel. and Tel.

"During the fall I received a small card engraved with these two names: 'Miss Helen Van Schagen, and Mr. Kenneth Sherwood Andem.' Ken is still with Public Service in Newark, N. J.

"Passing through St. Louis on my trips down here I got in touch with Joel Lund, who is in the shoe business. Johnny Ballard, XV, lives in Fort Worth. He's in the ice business — very important down here in the summer — and I believe is assistant manager of the Ballard-Martin Electric Ice Company. A bunch of Technology men listened in on the Phantom Dinner in New York, over in Dallas, but I didn't learn of it in time to be there.

"I'm keeping bachelor quarters, have a Ford coupe, and am enjoying the life. Have met many boys and girls. They put out some nice girls down here; besides being beautiful they have brains. And speaking of the weather — one day last December I went to the office all bundled up and in the afternoon had the windows open and the fans on. It's mild, but treacherously changeable."

I guess all our men remember Hank Davis, who got his S. M. while teaching the young how to shoot trouble in the labs. Hank gave an address before the A. I. E. E. section here recently, telling of the Philadelphia Electric Company's transmission networks in the city. Hank did a great job of it and handed them some line. Regarding more serious affairs, Hank is to be married — probably will be by the time this appears — to Miss Anne Raschiaf, of Philadelphia.

Here at the University of Pennsylvania we are trying out a new stunt — having the frosh and sophomores get all their liberal studies in the college and then buckle down for the last two years in the engineering school. They get their fundamentals down right, and leave all specialized courses for graduate work. So, what they get is simply direct currents, low frequency a-c., and high frequency a-c. Special subjects such as railroads, telephony, design, and so on, they get either in graduate years or out in practice. It seems a logical move, and we are watching the outcome with great interest.

A. J. PYLE, *Secretary*,
Univ. of Pennsylvania, Philadelphia, Pa.

COURSE VI-A

What a gust this month — three more of our worthy members have succumbed to the lure of married life, making a total of seven married ones, and there may be more as yet unheard from.

The more or less defunct *VI-A News* seems to have been revived again, and in a recent issue gives front page prominence to a letter from Pete Bailey. He is located at present in Little Falls, Minn., where he is district superintendent for the Minnesota Power and Light Company. Pete married Miss Virginia Nott of Duluth, something over a year ago, and is now the proud head of a family, the younger generation being called Junior.

A card received tells of the marriage of our good old P. C. Smith and Miss Jean A. McIntosh in Haverhill, Mass., on February 16. They will be at home at 453 74th Street, Brooklyn, N. Y.

A little VI-A gathering, including in its numbers Charlie Burke, Miles Pennybacker, Hugh Spencer, Jerry Carper, Don Knight, '22, and your Secretary, lunched at Walker one day recently to welcome Cecil Greene back to town. He has left the General Electric in Schenectady and is now laboring for the Spencer Thermostat Company in Cambridge. Before leaving Schenectady, Cecil married Miss Ida Flansburgh of that city. They are now living at 120 Brainard Road, Allston, Mass.

Another member of the Course is heard from in the person of Harold Crotty. I met him one day at the corner of High and Oliver Streets, heading up from Rowe's Wharf. He was evidently in a hurry and in one

1923 Continued

hand carried a voltmeter in its nice mahogany case. Yes, Watson, he is with the General Electric in Lynn in the meter and instrument department.

J. H. THOMPSON, *Secretary*,
1008 Beacon St., Brookline, Mass.

'24 You have all heard the same old openings in these columns during the past two years that it is getting increasingly difficult to think up a new one. In fact the weather just at this minute (it is the first day of spring by the calendar) is such that it tends to discourage much original thought and so I shall have to present the following offerings without an introduction.

I even find it hard to think up a new way of telling you fellows to write to your Course Secretaries. I expect I shall have to do that every time I write, however, so I would appreciate suggestions as to different ways of saying this same thing so that you wouldn't take offense at the repetition. For if you took offense then we shouldn't get anything at all and then we would be worse off than we are now, a condition hard to visualize but perhaps entirely possible.

No doubt you have all received premium notices from the Aetna by now. I just had to make sure of that fact. That's the only reason I mentioned it. In case you didn't get one, please notify me and I will deem it my duty to discover the reason. And, of course, again you all know what to do with them. Sure! Communicate with the Aetna this time.

Let us, therefore, pass on to a little personal gossip. Ed Dunlaevy, XV, was down in Pittston, Pa., with the Foundation Company until February, but now he has sailed for Peru, which is in South America, to work for the same company. He expects to be gone anywhere from one to five years and finishes up with the comment: "Most interesting."

Since last month I have heard again from George Knight who is the publicity agent for the 1924 club of New York. Therefore, please give your undivided attention to the following fact and file it away until the day when you will be in New York. The Class of 1924 gets together every first Thursday of the month for luncheon at 12:15 at the Planters Restaurant which is downtown on Pine Street in New York City. Always remember the time and place so that when you are in New York you can attend a meeting of the Class. And verily, I believe it will be a meeting because our worthy President is now in New York and can, therefore, preside at all the business sessions. The first luncheon was held Thursday, March 4, and seven attended. There wasn't much publicity given the fact then, which accounts for the few who attended, but now that I have told the five hundred odd and George is there to see that they don't get roast beef every time, the number attending the meeting should increase. Seven will never make a quorum, but at the same time if we got many more there wouldn't be much decorum. Which, now that I think about it, is an awful pun.

I have been able to collect a little news from Bert Donkersly and Al Brown lately so I will next relate some of the stories which they told me. Carl Bartow who was with the Underwriters is now with the Foxboro Instrument Company in Foxboro, Mass. — J. F. Buswell, married (when or to whom not known at the present), is now control sales engineer with the Westinghouse Company in Boston. — Bob Reid, single (why not known at the present), is traveling for the American Blower Company and covers the New England territory. — Jerry Fancher, married (further details also lacking in this case), is with the Acme Machine Company in Windsor, Vt. — R. G. Daily, single, is sales assistant of the switchboard sales division of the Westinghouse Electric and Manufacturing Company, to give you the whole name of the company, and is located in East Pittsburgh. — Ernie Hosbach, single, is selling radiator covers or manufacturing them, I have forgotten which Bert said, and I think they are auto radiators and not the steam variety. And just about the time that Bert finished he did tell me that Sam Hatfield was in Boston. But that is all I could find out; couldn't even tell whether he was single or not.

I certainly feel that the newspapers are giving this Class the ha-ha. Only one clipping was received this month which is certainly a low score. Isn't there some way you fellows can get your name into the paper? This one was from the Wilmington (Del.) *Journal* as follows: "Mr. and Mrs. Harry Lee Wrenn of 2301 Connecticut Ave., Washington, today (February 20) announced the engagement of their daughter, Miss Elizabeth Ormond Wrenn, to Samuel Hallock duPont, son of Mr. William K. duPont of this city. . . . Mr. duPont attended Yale University and the Massachusetts Institute of Technology. He

is associated with the duPont Company. Although the wedding date has not been announced it is expected to be early in June."

As stated or perhaps promised in one of the past issues we would get the President to write another letter for our edification before the end of the volume. It follows and you see it is indeed quite a good one and a long one, in short, it is edifying.

HAROLD G. DONOVAN, *General Secretary*,
80 Farmington Ave., Hartford, Conn.

PRESIDENT'S LETTER

In my travels recently away from the Hub of the Universe I have run across several buddies in whom you may be interested.

In Hartford on a business trip I was entertained by Hal Donovan and Al Brown. You probably know that Hal is putting the Travelers Insurance Company on an engineering basis. Al is figuring out some complicated project whereby the various Connecticut valley power companies can be interconnected so as to help each other in peak conditions. The details are left to your own imagination and involve all those engineering details which we never did understand.

A very pleasant month was spent in Schenectady. While there I lived with Watty Waterman, who is the Highway Lighting Specialist for the General Electric, working in coöperation with the various central stations in New York — at present with the Adirondack Company. Witter Cook of Tech Show is also actively at work in Schenectady putting the General Electric and the 'Stute on the map. Phil Blanchard is there with the old Mechanical Engineering with the American Locomotive. Jules Piland is there building a big new theater. That and being married, is Julie. Andy Kellogg, Willie Blaisdell and Reed were there too and with others complete quite a gang.

And now down here in the big town in two weeks I have run across Dave Evans and Rake Possiel. Dave spilled a good bit of scandal which was very welcome. Rake is rapidly becoming recognized as a power in Wall Street, but he emphatically denies being responsible for the March scare, when the bottom fell out of the market.

This shows that it's a pretty small world after all and it's sure great to press the flesh with a '24 buddy. We have been out now nearly two



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1924 Continued

years and some have achieved quite a success, and the rest of us are acquiring valuable experience in the cold business world.

There is one suggestion which I offer at this time. Will the '24 boys in the various towns get together in groups? The benefits of this are many: a better feeling of understanding and sociability among us all in a broad and different way from our relations heretofore. In this way class plans, in which we all wish to do our part, can be more effectively carried out. Nineteen twenty-four is to be congratulated on its accomplishments during the year 1925, and you may be assured this is appreciated by the boys helping to do things. May the 1926 record surpass even this.

I wish each one the best of luck in your work and otherwise.

My address is 120 Broadway, New York City, care of the General Electric Company, telephone Rector 7600. I will be pleased to hear from every classmate when in New York.

WILLIAM H. ROBINSON, Jr., *President*,
120 Broadway, New York, N. Y.

COURSE II

At the time the notes were due for the last issue of *The Review* my letters had not been out long enough to give every one time to answer. But now, we have a horse from another merry-go-round. I don't know whether to give my honest opinion of you in *The Review* or maintain my self-respect. At any rate, taking this crowd as a whole you are not so hot when it comes to answering my letter — (with apologies to the few noble ones). I really feel sorry for you fellows who haven't written yet because your conscience must trouble you, probably so much that you have circles under your eyes from loss of sleep. Now for the choice news we have at hand.

Will Herbert is an engineer in a sugar refinery of the United Fruit Company at Central Preston, Cuba. Will says that he has his difficulties keeping the factory running despite the fact that it is very modern and large. He sends his best regards to all the old gang.

We had a little information about Harry Hammond in the last issue which came indirectly, but here is some first-hand news. He doesn't say anything about the accident that he met with recently and crew seems to predominate in his mind. Harry says, "I expect the boys are getting the shells down off the racks and greasing the oars. That's

great stuff! What?" He is now in Evansville, with the Bucyrus Company.

Kay Hamilton is with the Linde Air Products Company and is in Buffalo. The following is taken from his letter. "Had been in Buffalo just one hour when I ran into Joe Taylor. He is with the United States Radiator Company. Joe and I attended a Technology smoker at Tonawanda, N. Y., and met Chick Chickering, who is located at Niagara Falls. Dippy Davol is also at Niagara Falls with the Niacet Chemical Company. Walter Bagby is with the Linde Air Company at Tulsa, Okla. Everett Martin is now a salesman for some automatic machine company in Cleveland. Last spring I ran into Pete Dirksen in a hotel lobby in Detroit. He was attending some convention. The Polish Convention was in session at the same time, but Pete denied being a delegate to it."

The following has been received from E. S. Gray: "As for employment, immediately after leaving Technology in June, 1925, I went to bed for ten weeks, came to where I am now staying to recuperate and the first week of January I was taken sick again and am still in bed. The nature of my illness has been heart trouble and rheumatism." We all sincerely hope that you are well on the road to recovery by this time and that notes in these columns help to drive away monotony for a short time at least. Gray is at Victoria, N. B., Canada, and hopes to get back to Boston by the middle of April.

Ed Pollock is now out in Youngstown, Ohio. He claims to have no news about himself, but says Homer Davis is a real author and that eight of his articles on radio are being published in *Radio Broadcast*. — Edward Abdun-Nur is with the Engineering Experiment Station of Kansas State Agricultural College and is doing some research on air resistance to motor vehicles. — T. E. Moodie is in Atlanta with a storage battery company.

Hunt Wardwell is still with the Continental Wood Screw Company in New Bedford. He is now handling the office force and goes under the title of office manager. — Jack Stanton is back from the wilds of South America. He is firmly convinced that the U. S. A. is a fair-to-average country.

This is the best we can do on the notes this time.

FRED S. HUNGERFORD, *Secretary*,
8 Dana St., Cambridge, Mass.

EDWARD J. HANLEY, *Assistant Secretary*,
29 Park Ave., Whitman, Mass.

COURSE VI

Henry Zeiger writes: "Prepare for a mild shock as I announce the fact that I have been married for well over a month now. On January 12, 1926, Miss Helen V. Cohill of Tarrytown and Brooklyn took a long gamble and with the aid of your humble servant, changed her name to Mrs. Henry B. Zeiger. So far she has not discovered anything wrong with Technology men, and I'm asking other members of our Class to keep up the modest illusion that they are all right. As yet I can hardly qualify as an expert on the married status, but my limited observation leads me to say firmly, even if gently, that it has a great many advantages. I won't enumerate these in distressing detail.

"As for some other members of our Class, I am afraid I can't report much news. My work does not carry me into contact with them, especially as most of my time is spent on trains, wondering why railroad service is so poor to these out-of-the-way-God-forgotten little towns. I have been corresponding with Archie Carothers. . . . I should not advise the other members of the Class to write him as they will immediately be swamped with a lot of Florida real estate literature. I am shock proof, since I've seen the real boom out in California, which, when compared to the Florida boom, is like the battleship *California*, a superdreadnaught, compared to some of the little yachts that despoil themselves in Miami harbor. However, I may be a prejudiced judge, since my home is in the Golden State, so we'll concede a moral victory to the bally-hoo artists, among which, sad to relate, is the once respected Archie."

The Class extends its most sincere congratulations, Henry, and certainly will do its best to keep up the illusion that Technology men are all O. K.

As for Archie, in spite of the remarks quoted above, he is making good as nearly as I can gather and is still interested in the activities of his classmates. Perhaps some of them would like to be deluged with Florida real estate literature. However, in all fairness to Archie, I think we should refrain from classing him with the bally-hoo artists until such time as he brings this judgment upon his own head by confessing what he is doing. He's good at talking in riddles just now but you remember his old title at school, "The Course VI Politician."

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1924 Continued

He writes me that horseback riding and swimming are delightful sports to be pursued in a land of sunshine, so draw your own conclusions.

I had a fine letter from Henry Shore too. He writes as follows: "Last June 9 I managed to snaffle my master's degree at Carnegie, by the simple virtue of talking the board of examiners into believing I know something about friction. They were sceptical — but when they saw our joint thesis with many beautiful pictures, they had to agree to give it to me — not because of any inherent knowledge, but because my line was terrible and they couldn't take any chances on a repetition of it. From then to August 3 I was at the Bureau of Mines, working on the old problem of viscosity under pressure. I got a bunch of data and would have continued, but I felt the need of a vacation. So, I bunched up to the Catskills to spend a couple of weeks with my mother. Then the urge to do something big came along — and lo! I was back in New York City once more. Here a very strong but short search for work was made, short because I had to make up a year's lack of shows. (Met Greatwood during this time on Fifth Avenue. He was then with Johns-Manville, but he was negotiating for a wonderful job in Connecticut.) Then a letter came from Professor Franklin telling me of a job as instructor at Northwestern. So lil' I gets in an old Overland with a couple of chappies from Milwaukee and rolls leisurely to Chicago and calls on N. U. Unfortunately the job had been filled so I breezed on to Madison. Being broke, I thought I'd try the University there, so I breezed into the Physics department and received the answer, "You're just our man." Thus do I find myself Curator of Apparatus of Frosh Laboratory as well as Corning Glass Works Graduate Research Fellow — and, of course, I needs must register in the graduate school, so you can write your own ticket.

"My research problem last year was of some success and I just received a copy of the work put out by C. I. T. We did so much that they decided to break it up into two reports; so a second one should be along soon. This year's problem is far better in several respects — no more labor and considerable absence of strained backs, torn hands and the like, that the Carnegie job afforded. This problem is a most delicate one: 'Detection of Strains in Opaque Glasses' and you can imagine me, with ten weeks of Frosh Optics behind me, talking about absorption spectra and such forth. But the courses here sure are knock-outs and I go down for the count each and every time — but tenacity is the by-word. Mayhaps, with the years, I may achieve my Doctor's degree in Physics, but I'd hate to hold my breath that long. I ran across Moodie who is with the Westinghouse. He is pounding holes in concrete at Madison Gas and Electric Company's new substation before he juggles their new generators. For the rest, this place is slightly provincial and mundane."

That is a fine letter and I wish some of the other fellows would come across with some too.

I had a very interesting letter from Samuel Silverman and he writes as follows: "Just a few lines to acquaint you with the fact that I am at present employed by the Claude Neon Lights, Inc., Long Island City, N. Y., as research engineer. I am at present making an investigation of the purification of Neon and other rare gases to be used for illuminating purposes. Transformers are used in our signs with a secondary voltage of 16,000 volts. The work is very interesting as it pertains to the conduction of electricity through gases. The above news may be interesting to some of my classmates, especially of Course VI-C. M. P. Besdansky is with the Radio Corporation of America at Marion, Mass., and Brimberg is still with Station WNYC. The above are also VI-C men."

HELEN W. HARDY, *Secretary*,
80 Park Place, Newark, N. J.

COURSE X

Being the greater part of a letter which Elmer Brugmann of that course of illustrious chemical engineers wrote at the request of Bill Coleman to the General Secretary of that Class of illustrious engineers in general and which, happily to relate, arrived special delivery just in the nick of time:

"Bill Coleman asks me in a Billy do that you be given the available hot dope on X-24 for use in The Technology Review. Will lead off with a couple of cases where the boys have hopped the traces and no longer are chemical engineers as such; to wit — Mark Buerger who is on the staff of the Geology Department at the 'Stute and interested in optical ceramics and Murky Merkelson who is booming real estate around Boston.

"Hank MacMillan has returned to the fold and is busy on laundry problems in the Research Lab of Applied Chemistry. — Warren Hill has been on construction work with the Torckland and Rockport Lime Company and is to be back at the 'Stute for a while and a few

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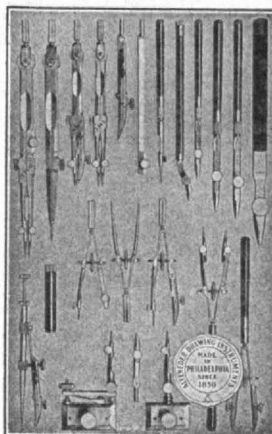
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No. 1029. Exploration Party. Engineer wanted to take party on exploration and survey for oil. Knowledge of radio preferred. Man must be rugged physically and like to be out of doors. He must have ability to keep 20 men organized, fed, and happy while inspiring them to push through tough obstacles to reach a desired goal. Needs good grounding in Mathematics, Physics and Electricity. \$6000.00 per year plus expenses for good man while in the field. Southwestern United States.

No. 1030. Man wanted who will be interested in estimating for moving buildings. Concern feels need of man with engineering background who can work up with them. Man must be ambitious. Age: between 25 and 30. Job worth \$50 per week to start. Location: New York and Boston.

No. 1031. Several men needed for sales work on De Laval products. Men must have two to three years on machinery sales work. Location: Atlantic Seaboard States. Good proposition for men qualified.

No. 1032. Administrative Engineer of middle age needed to take charge of corporation marketing \$10,000,000 worth of goods yearly. Man should understand financial statements and practice. Location: New England.

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*All inquiries should refer to numbers and should be
addressed to*

PERSONNEL SECTION

DIVISION OF INDUSTRIAL
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C A M B R I D G E

1920 Continued

courses. Once in a while Norm Marden drops around to tell how it is done in the Old Colony Laundry at Quincy. Another local boy features — and it is none other than Bud Robertson doing a thesis. Congratulations for Bud. Ed Britt ought to be included for we understand he is *working* in Philadelphia (Hosbach told this one). Little news filters on from the X-A fellows, but all of it indicates that the roses are red and the grass is green. Fred Reed tells that the Eastman Colored Movies — *Kodachrome* — are premier and have a bright future. — Sarg Heath and Hood Worthington were at the duPont Experimental Station when last reported. Mackie, McCoy and the writer have not yet been weaned from the 'Stute. I suppose the Course Secretary would like to have you jack up the fellows about letting him know the good or harmless things they have done.

"Will close the books at this point and ask that you stop in next time you are at the 'Stute. The place is still going strong and much enjoyment can be extracted from it and vicinity.

WILLIAM B. COLEMAN, Secretary,
40 Morningside Ave., New York, N. Y.

COURSE XIV

Congratulations are in order and are hereby extended to Eddie Lindstrom, who has announced his engagement to Miss Louise Thomas of Roxbury. Eddie will be the fourth member of the Course to forsake his bachelor friends and become a dutiful husband. The other three, as you all know, are Brownie, Cummings and Morgan, but I thought it might be well to again mention them for their previous display of fortitude and bravery. Eddie has not yet announced, or at least he hasn't let me in yet, as to when the happy event will take place.

That takes care of one of the important things. It is quite an important thing to get married, I believe. The other one is a long and very, oh so very, interesting letter from Norris Johnston. He starts off with a good lot of news about himself which I won't repeat verbatim because he might sue me for disclosing some of his most intimate affairs, but I will try to give you an idea of what he is doing. He has been playing in lampblack for six months now and took time enough off from one of his many reports to write me the letter, an act which I fully appreciate. His most recent exploit in the industrial line was the construction of a pressure gage which would read down to .001 inches of water with a chance of estimating .0003 with good luck and the proper manipulation. It was fashioned after a commercial type which costs \$65, but he was able to construct his at a cost of 4.2 cents for glass tubing and a little labor. I'm sure if I tried to do the same the tubing alone would cost me the \$65 and the company would lose the labor, value unestimable. His most recent exploit in the line of diversion has been the construction of a radio set. Still sticking to the exact details this cost him \$16.63. This set he sent home to his parents and then bought himself a five-tube r. f. tuned Aragain set at a saving of \$90 and found that his own home-made set was more selective and could produce just as many noises. Like all other sets it keeps him up until the small hours of the mornings and just exactly like all the other sets it sets him back about every week for B batteries. And here I shall start to quote because it is here that he starts to tell me all the news about the other members of this Course, some of them the ever silent members. "Morgan tells me he is the Industrial Appliance Department of the New Bedford Electric, and is worrying along with a Willys Knight to run on company business! He is changing over coal and oil furnaces to gas, and has had a lot of interesting experiences already. Got home o. k. in his Ford last November and says it is partly because Chan Clapp looked it over for him before he bought it! Chan is still here, the assistant efficiency engineer of the works, and is looking as prosperous as ever, though the cares of life are beginning to make him an old man. Don't take that too literally. Did you ever know Stanley, XIV-'22? He is a new Technology man in Morgan's place, and is getting worked in very rapidly.

"Morgan says Walthall is still writing him from Badin, but probably you have heard from him since then. (I have.) Where is Cummings, and where is Brownie? It is interesting to remark that two recent, and another less recent, XIV men are in the Lab of the Carborundum Company, and another, with a XIII man, are in the Norton, our deadly enemies' camp. I suppose I should lose my job immediately if I wrote to Eddie now. One time he was actually trying to get up here with the Carbo, and now look what despondence our inability to find him the work he wanted has cast upon him."

And that is what I call a real letter without any reservations at all. My only regret is that I don't seem to get them oftener, but it is so easy to pardon Norris for this when he does send one because they are always the apex of perfection. I was trying to think who I could pick

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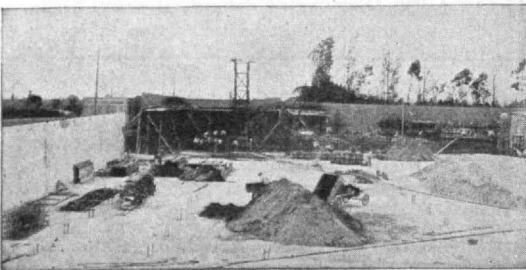
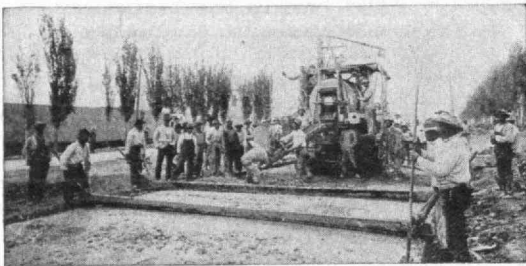
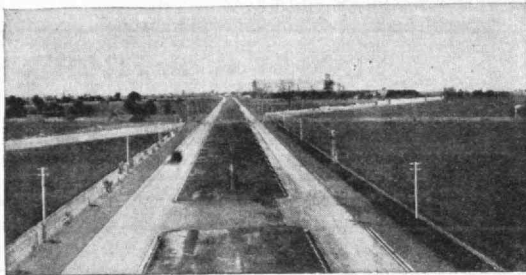
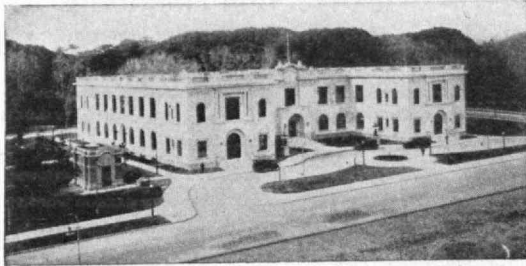
1924 Continued

out of the Course in particular to try to beat his record of completeness and while in general I would like to see every one make an attempt, I think I ought to make reasonably sure of a couple by requesting the two whom he inquires about to step up and try their hand. Will Brownie and Al Cummings please step up front!

HAROLD G. DONOVAN, Secretary,
80 Farmington Ave., Hartford, Conn.

'25 No notes have been received by The Review Editors from the Secretary of this Class for inclusion in the May issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review Office. Members of the Class having news or inquiries should address them to Charles R. Muhlenberg, Secretary, 22 East 38th Street, New York City.

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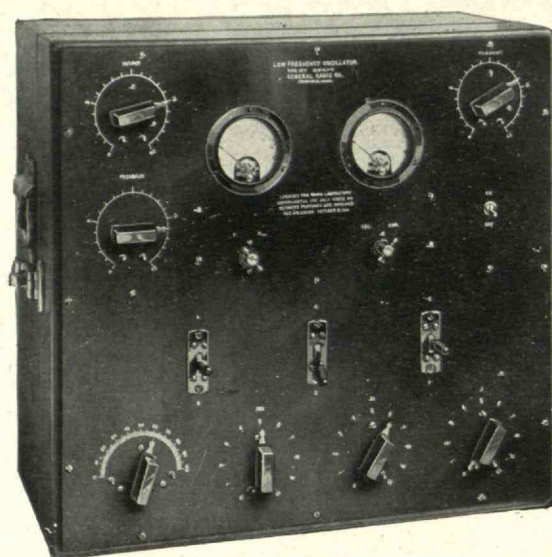
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